



Introducing Alker Fibre Optic Specialists Ltd

Here to take care of all your fibre optic requirements providing design, consultancy and manufacture of specialist fibre optic assemblies for use in harsh environments. Everything you need in one place with a focused team of experts at your fingertips.

alker
FIBRE OPTIC
SPECIALISTS

About *alker*

Alker, established in 1985, is proud to be one of the oldest Fibre optic solution providers and Fibre Optic Terminations houses in the UK.

Specialising in high-quality engineered fibre optic solutions for use in harsh environments, providing full-service solutions from consultancy and design through to manufacture.

As a small independent fibre optic solutions provider, this allows us to adapt quickly to the growing demands of our customers, offering fast turnaround capability without compromising on quality.

Alker continues to support many of the most respected primes across multiple industries such as Defence, Aerospace, Space, Marine, Transport, Renewable Energy, Oil & Gas, Medical and Nuclear.



Why alker ?

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UK BASED MANUFACTURING

Our facility is based in Lingfield, Surrey, UK. Providing Design, Consultancy, Engineering and Manufacturing Services for all your harsh environment fibre optic needs.

LOW VOLUME PROTOTYPES

Rapid prototyping capabilities to accelerate your R&D and new product development needs bringing your concept to life.

DIAGNOSTICS & REPAIRS

Our team are available to diagnose existing fibre system issues offering emergency repairs both onsite or in our production facility.

FAST TURNAROUND

Traditionally, we are proud to turn around orders quicker than most, with 'Jump The Queue Services' also available usually halving the lead time, subject to parts.

ACCESS TO TECHNICAL ADVICE

Providing direct access to our Technical team allows you to gain advice and speak directly to those designing & building your solution.

OBSOLETE OPTICS & WARRANTIES

Reverse Engineering and bespoke design to repair/replace obsolete products.

Guaranteed fibre optic performance and reliability for the lifetime of the equipment they are within.

Services

A person's hands are shown working on a laptop and papers, with the word 'CONSULTANCY' overlaid in large, bold, dark blue letters.

CONSULTANCY

Consulting is more than providing expert advice: we engage with your company to understand your requirements to provide specialised guidance & recommend solutions.

A close-up of a fibre optic cable with a connector, with the word 'MANUFACTURE' overlaid in large, bold, dark blue letters.

MANUFACTURE

Production is overseen by our talented team with decades of experience. Every product produced in Alker's facilities is manufactured to ISO 9001 standards.

A technical drawing of a mechanical part with various dimensions, with the word 'DESIGN' overlaid in large, bold, dark blue letters.

DESIGN

Our experience and agility mean we can design world-class fibre optic solutions quicker.

A close-up of a fibre optic cable being repaired or connected, with the word 'REPAIR' overlaid in large, bold, dark blue letters.

REPAIR

Our mission is to keep your equipment up and running, minimising costly downtime and extending the in-service life of your products.

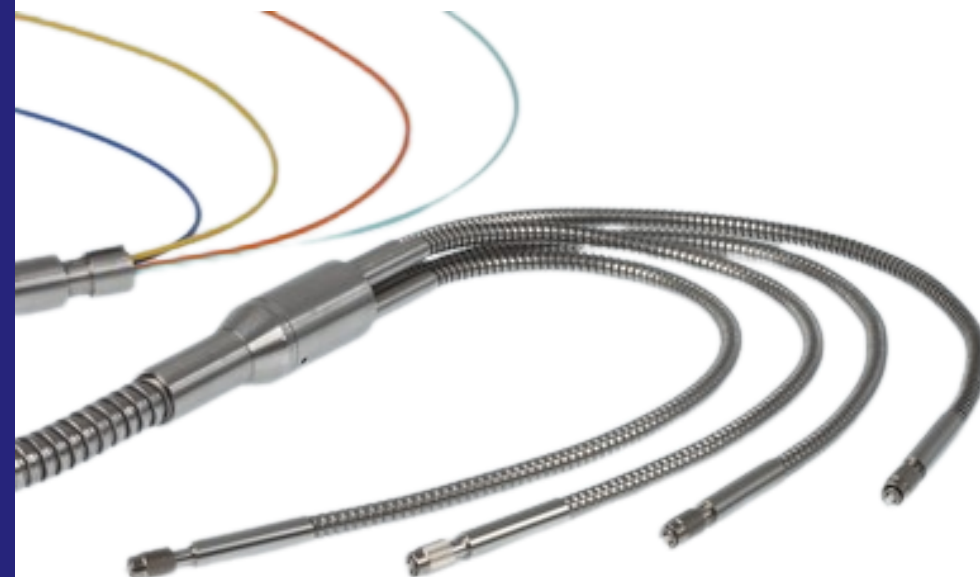
Products

Alker products are designed and manufactured to be subjected to prolonged service within the harshest environments.



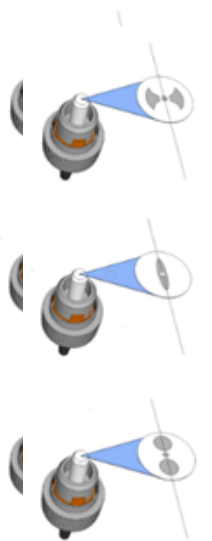
BESPOKE ASSEMBLIES

- Manufactured to your specifications.
- Keyed connectors with aligned fibre optics to your specification.
- Bifurcated/Trifurcated and power-integrated assemblies.
- Bespoke Micro Armoured Fibre Optic Bundles tailored to meet almost any fibre or requirement, from as small as 1.5mm outer diameter. Ideal for multiple applications such as; splitting the light from a source to several outputs; or merging light from various sources into a single output.



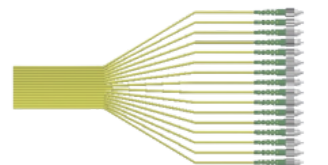
POLARISATION MAINTAINING

Most commonly used for special applications, such as in fibre optic sensing, interferometry & quantum key distribution.



ARRAYS

We offer 16, 32 & 64-way arrays as standard & we can tailor-make an array to suit almost any fibre/requirement up to 128-way.



EXPANDED BEAM

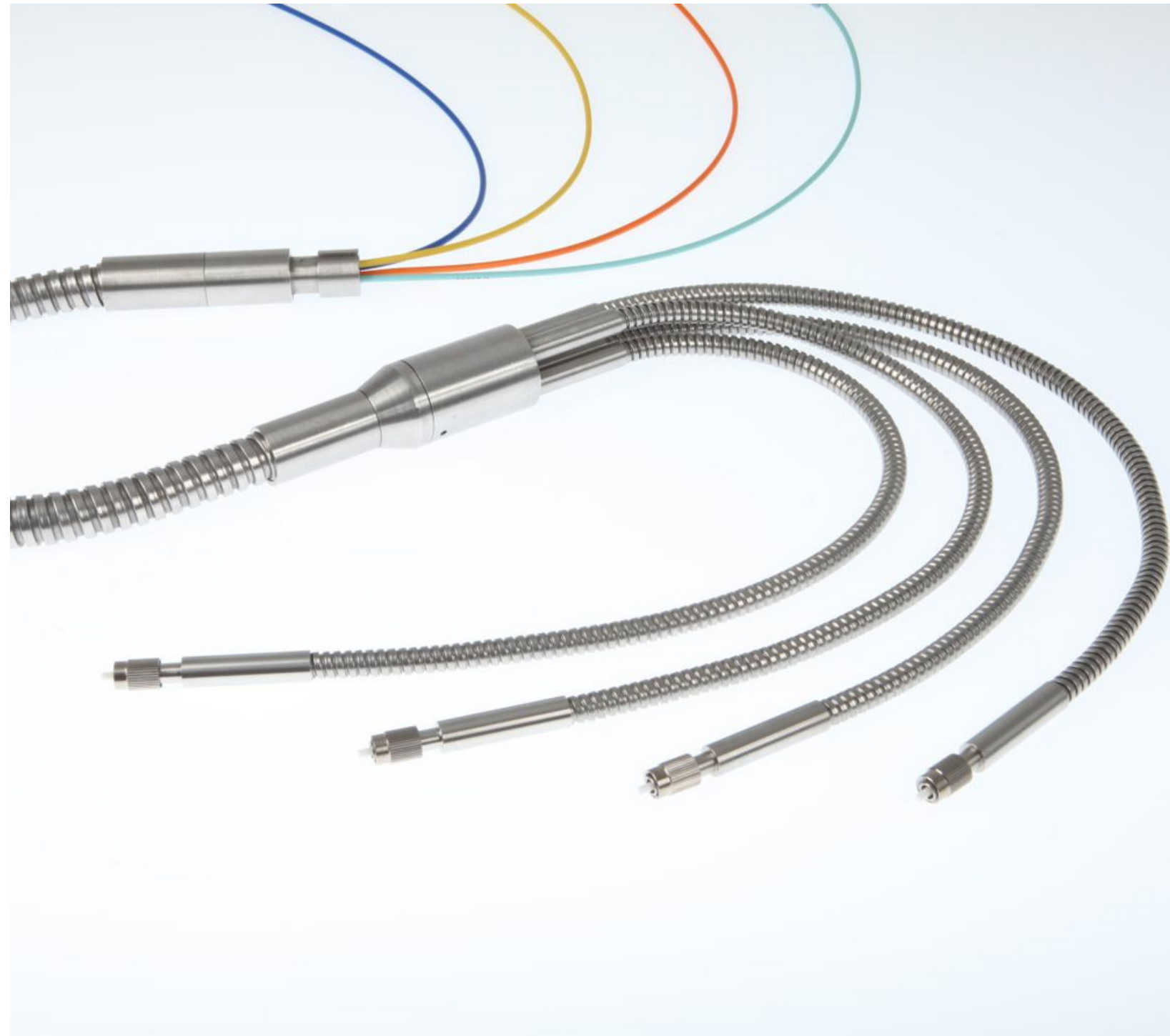
Ideal for harsh environments using a contactless connection with light passing over a small gap between two lenses providing resistance to vibration and mechanical wear.



Bespoke Armoured Assemblies

We specialise in Fibre Optic Armouring with an ever-evolving array of lightweight armouring solutions protecting the reliability and extending the in-service life of the asset.

A core element of our business focuses on bespoke complex solutions rather than off-the-shelf products.



Harsh Environments

ARMOURING



BENEFITS OF ARMOURING

Armouring provides extra protection for fibre optic cable without sacrificing flexibility or functionality reducing the risk of downtime and damage.

Armoured fibre optic cables are much stronger and tougher than common cables, which are designed to withstand crush, pressure, direct burial and other environmental conditions. Designed to ensure operational safety, high flexibility and durability when used in harsh environments or limited space.

When it comes to unarmoured and armoured fibre optic cable comparison, the distinctive difference lies in the outer protective layer which can be tailored to meet the demands of your project.

Armouring Samples available on request.

ARMOURING

All modes of fibres can be armoured including single mode, multimode and polarization maintaining, to name but a few. We are able to tailor solutions to support all applications - wet, dry, hot, and cold, bend insensitive, excessive vibration or crush loads.

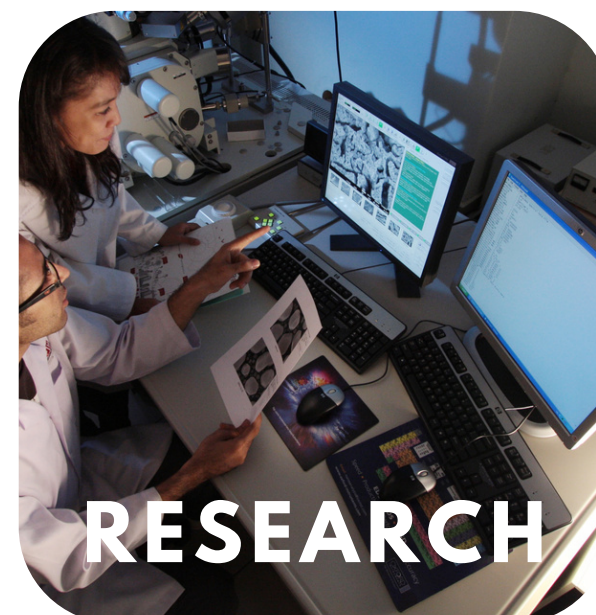
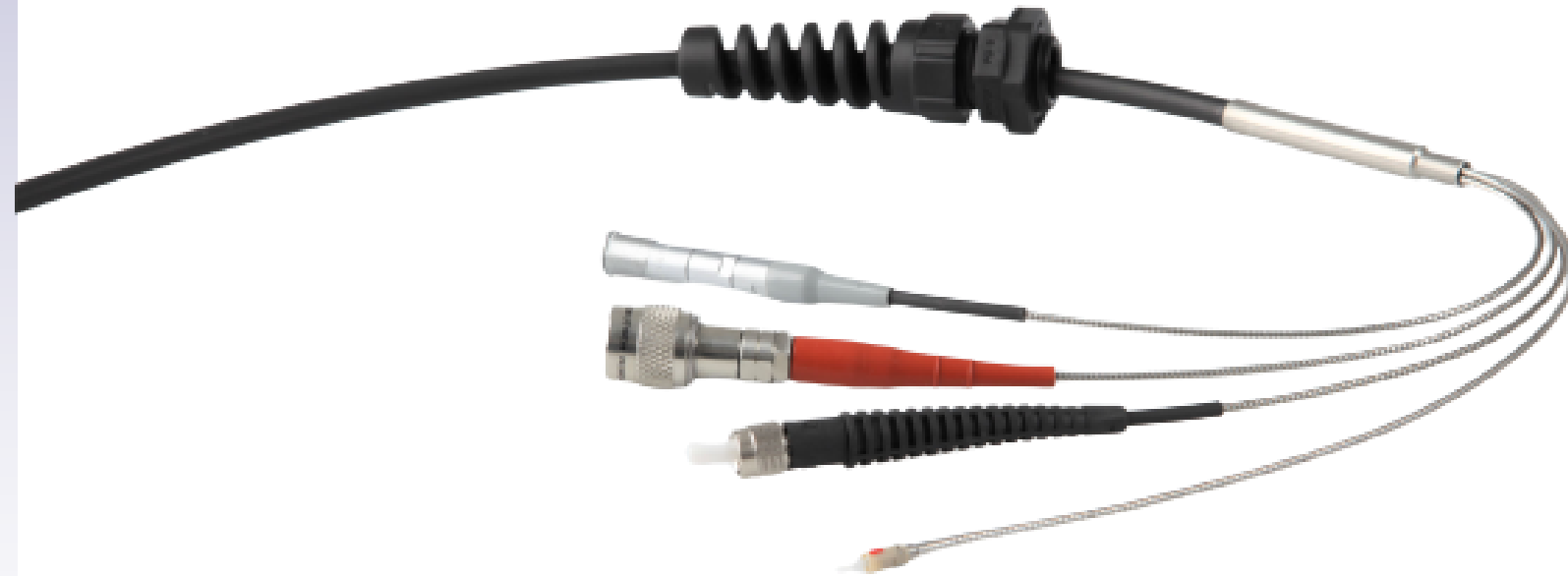
Available from 1.5mm to 25mm diameter as standard with other specifications available on request.

RETROFIT ARMOUR

We offer retrofit armouring options to increase the longevity of existing fibre optic harnesses and installations, protecting what can frequently be the most fragile element of your project.

Industries

Alker continues to support many of the most respected primes across multiple industries such as Defence, Aerospace, Space, Marine, Transport, Renewable Energy, Oil & Gas, Medical and Nuclear.



Quality Assured

ISO 9001:2015

ISO accredited since 2010 demonstrating our ongoing commitment and capabilities to consistently provide products and services that meet customer and statutory requirements whilst ensuring quality and consistency.

JOSCAR

The Joint Supply Chain Accreditation Register (JOSCAR) is the accreditation for the aerospace, defense and security industry ensuring suppliers have the capability and continuous improvement opportunities to service the customer and ensure compliance is maintained as industry requirements evolve.

CYBER ESSENTIALS

As part of our commitment to cyber security, our Cyber Essentials accreditation provides peace of mind to our customers & suppliers that we are protected against the most common types of cyber threats such as phishing, malware and password breaches.



Our Values



INNOVATION

Pushing the boundaries of the norm, we never give up seeking creative ways to solve tough problems. We encourage curiosity and challenge the impossible.



INTEGRITY

Honesty, fairness, transparency and respect for all clients and colleagues alike. Integrity is our most valuable asset.



EXCELLENCE

We believe quality and service is everything and we make every decision based upon how well it serves our customers and our people.

Products in Development

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Patented Alker products in development



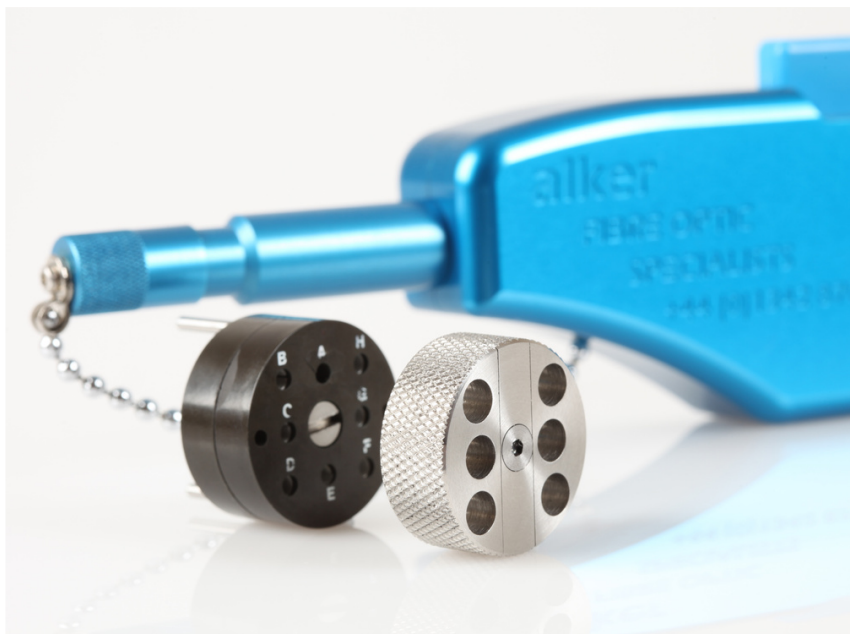
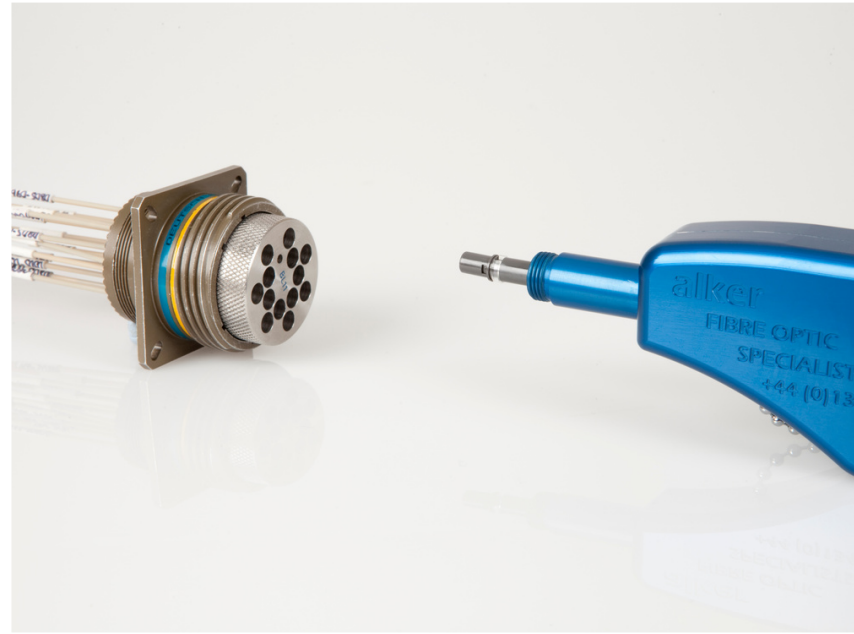
Inspection & Cleaning Kits



Features:

- Microscope to inspect termini end faces for debris or damage.
- Can be used with both singlemode and multimode fibres.
- Designed for military multiway ferrule connectors.
- No need to remove termini/ferrule from connector, saving time and minimising the risk of damage.
- Prototypes manufactured, tested approved and ordered for multiple kits in use across Saudi Arabia with stock holding agreement for immediate shipping worldwide.
- Angled cleaning available for difficult to reach places, designed to clean fibre optic patchcords, pigtails and adapters of all types.

Bespoke inspection & cleaning kits designed for your project and specific connector types.



Alkerme™ Repolishing Tool



- There are vast amounts of fibre optic connectors in service around the world within high-value assemblies that have a long delivery time. These assemblies are attached to critical and valuable equipment: test equipment, in a fighter jet or submarine, or within other critical applications.
- A once obstructed fibre can now return to transmission extending the in-service life of your assemblies or equipment and reducing both downtime and significant replacement costs.
- Possible to adapt to fit almost any fibre optic connector.

Introducing alkerme™ the first fibre optic ferrule, pin & socket end face re-polishing tool for damaged military specification multi pin connectors.

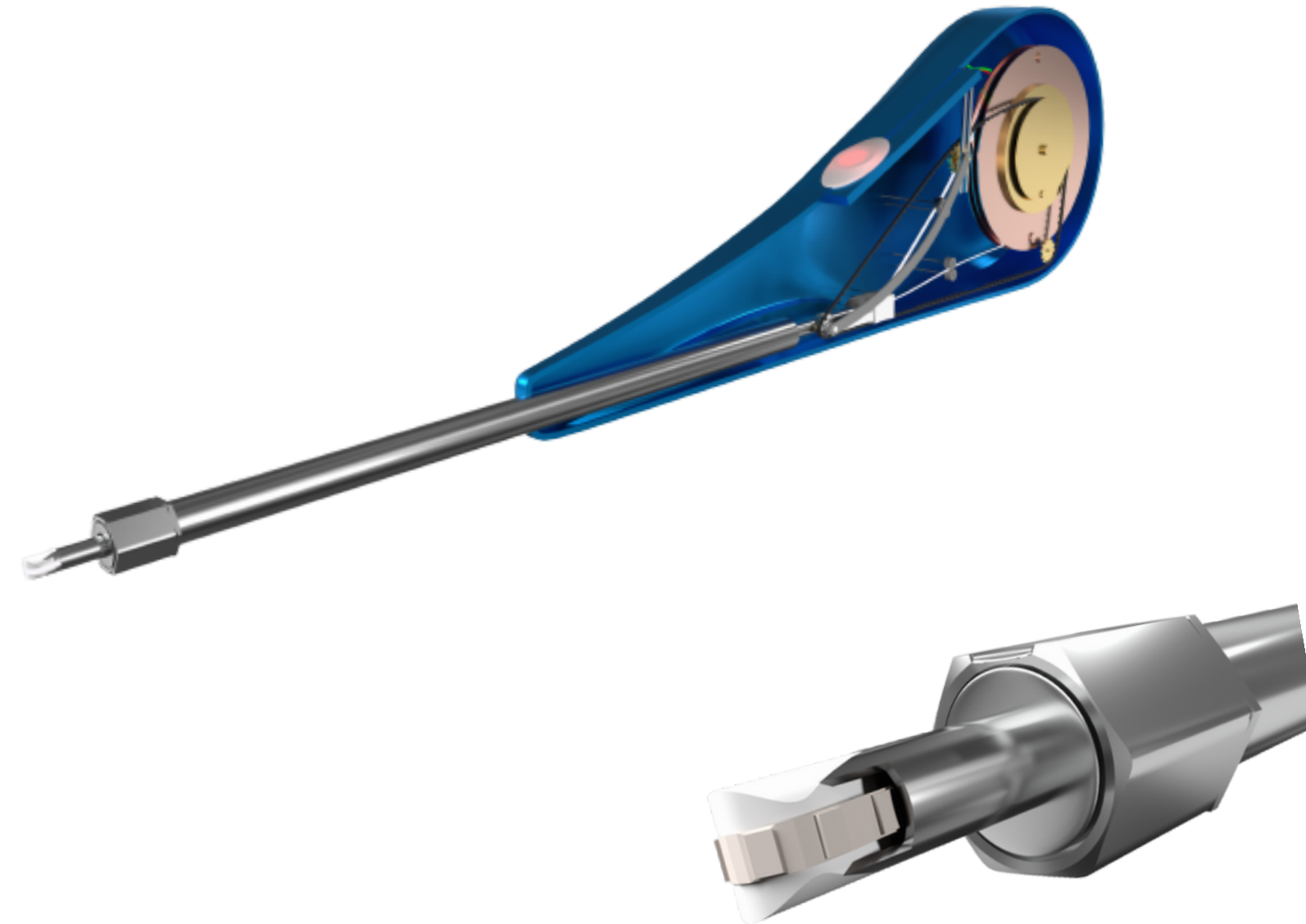
Alkerme™ Repolishing Tool

Features:

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- Designed for military multiway ferrule connectors.
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USP's:

- Battery or Internal wind-up mechanism (no spark).
- Both Male and female ferrules can be re-polished.
- Various grades of polishing paper available.
- Depth adjusted for each individual ferrule height.
- Regulating pressure.



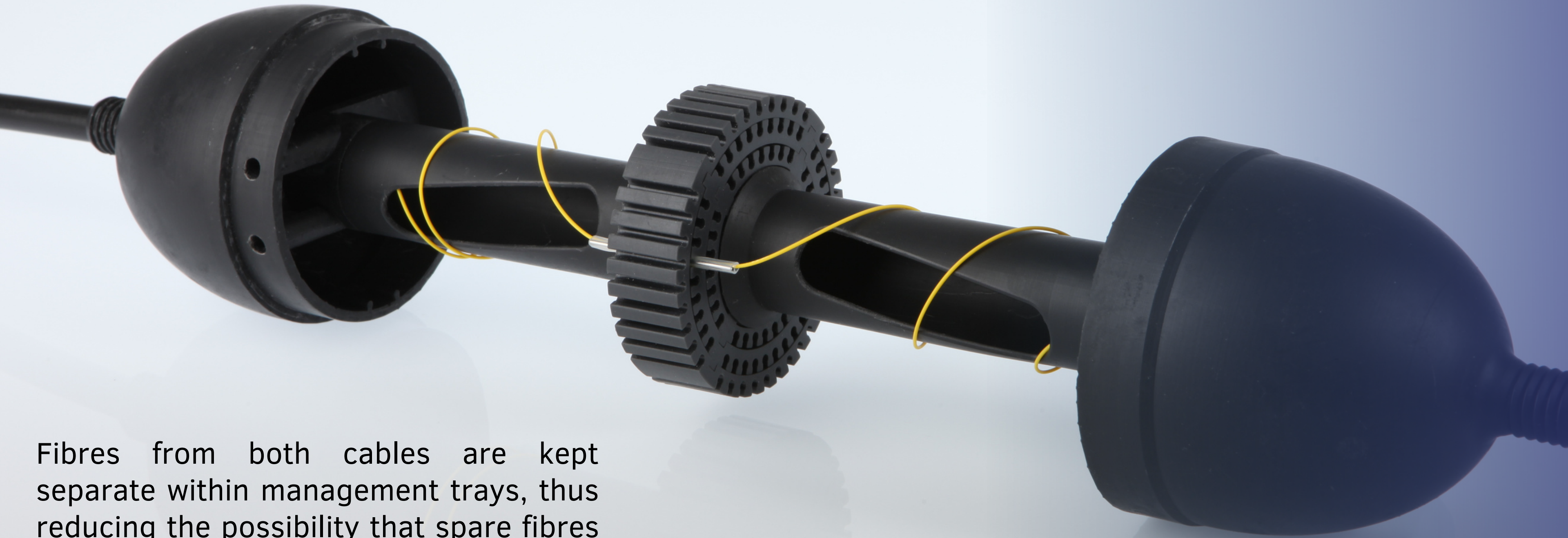
Splice Enclosure



- Waterproof with sealed entry points
- Unique innovative splice organiser: quicker, easier and safer than traditional solutions
- Unlimited fibre counts
- Tailored to your bespoke requirement

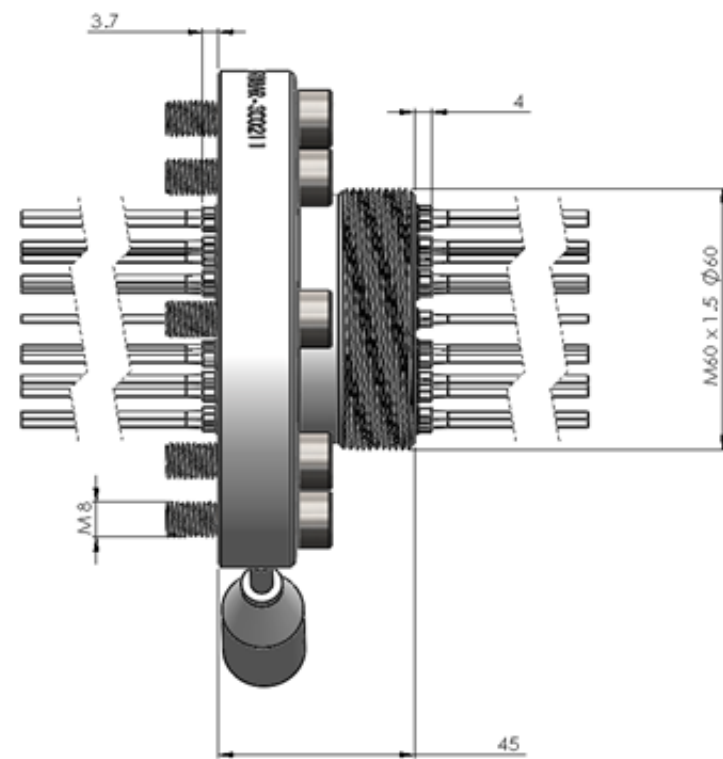
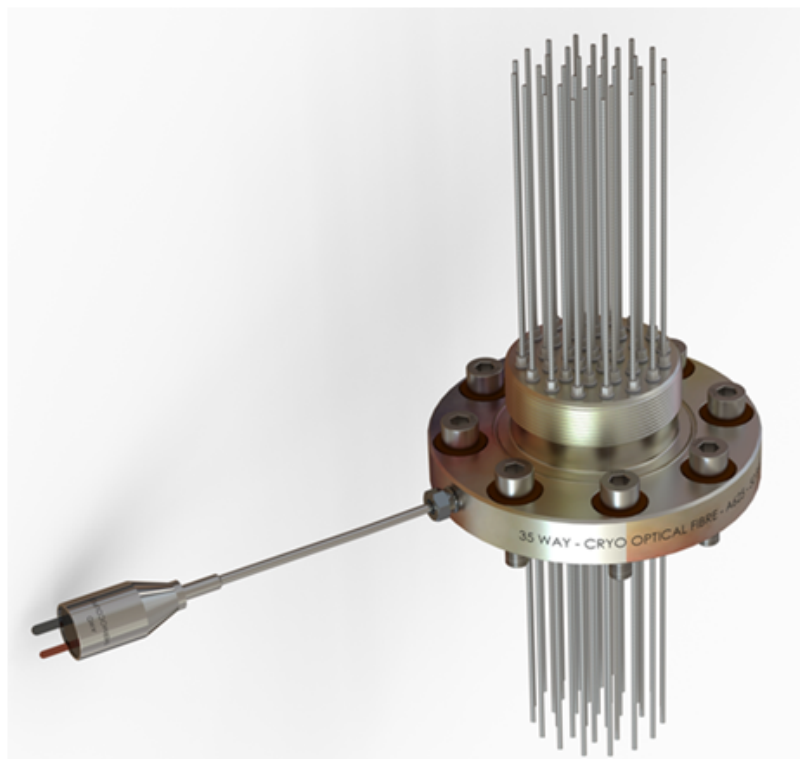
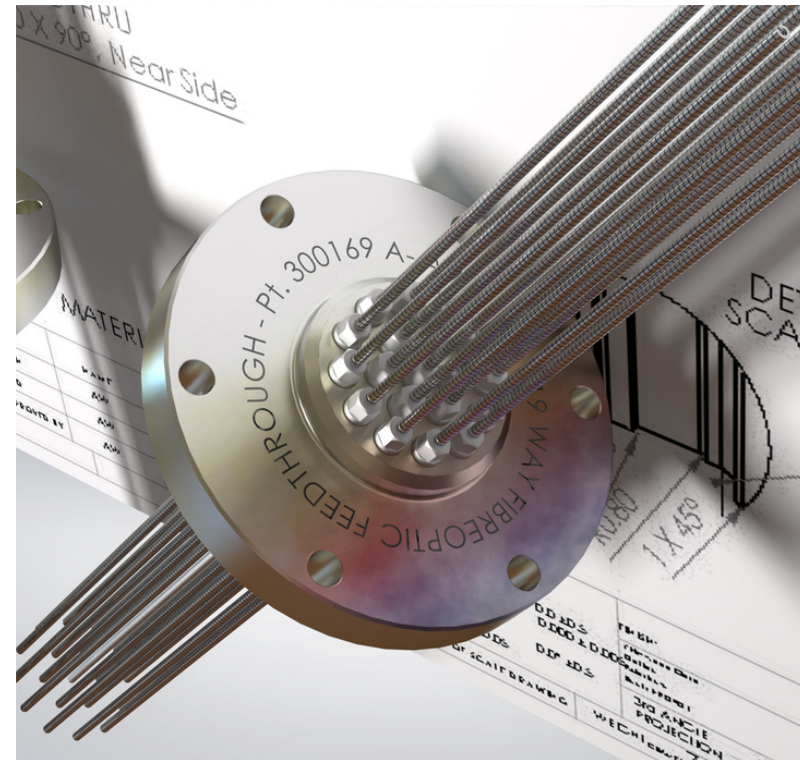
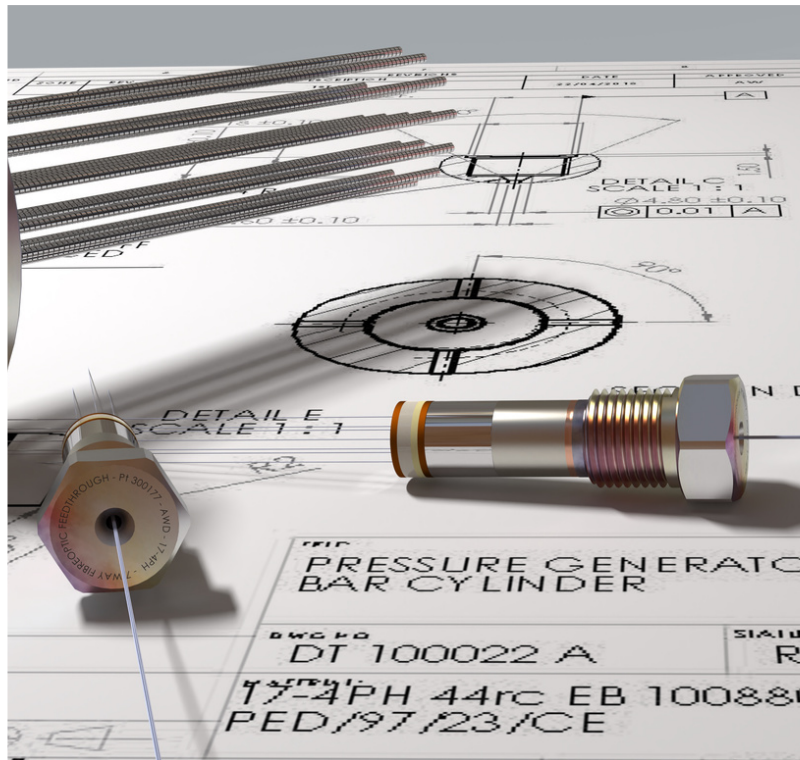
Splice Enclosure

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Fibres from both cables are kept separate within management trays, thus reducing the possibility that spare fibres might become entangled and making it easier for the operator to redo the splicing or add another connection whenever the need arises.

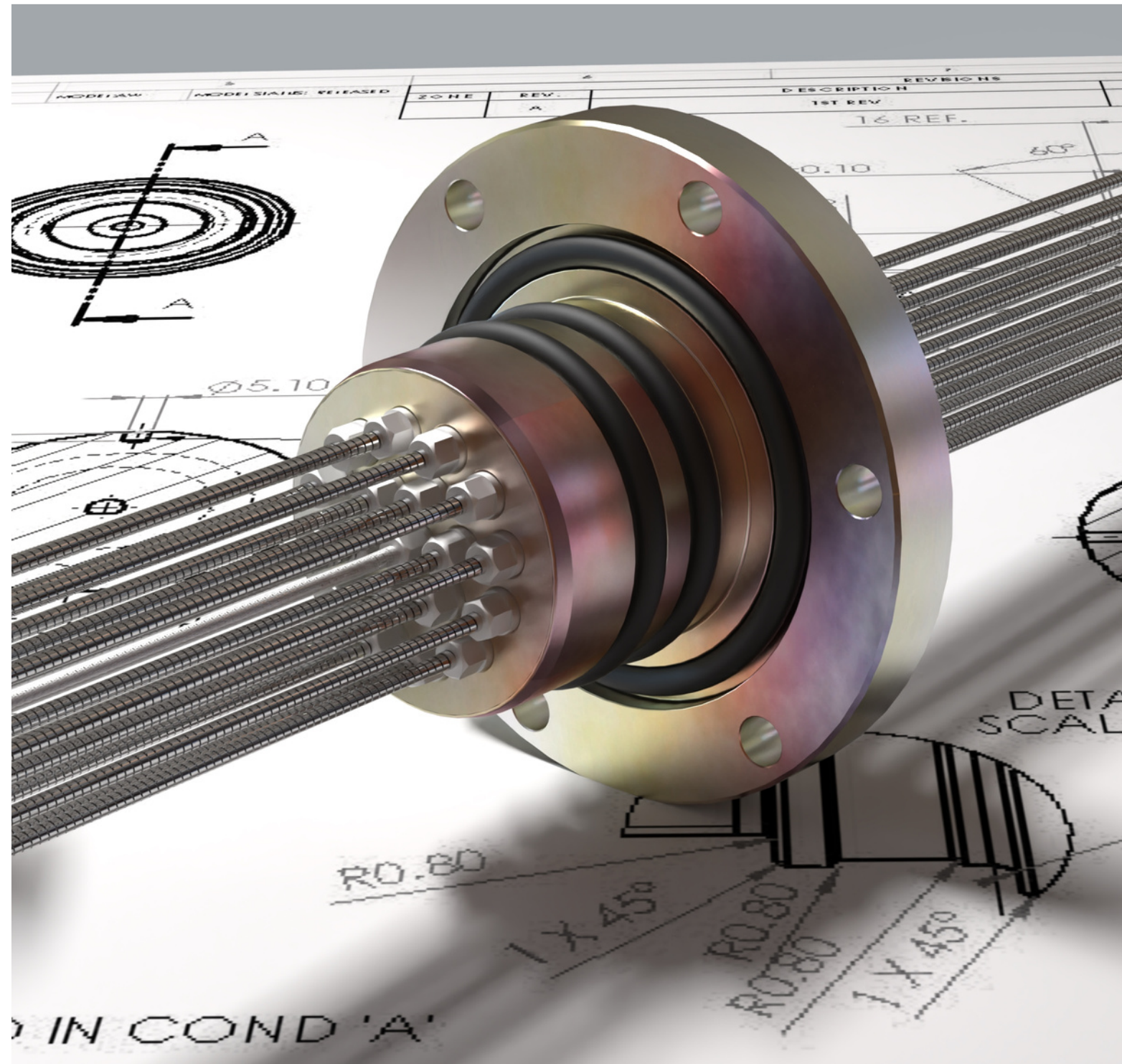
Feedthroughs



Typical Mechanical Specifications Available:

- 1 off to 50 off fibres (depending on the area available)
- Pressure differential from 0 to 3,000 bar (Static or Cyclic loading can be accommodated)
- Leak tight up to 1×10^{-7} mbar l/s (helium test)
- Proof Pressure Tested and certified
- Pressure medium – A full range of gases and fluids (we can advise on other more specialist mediums)
- Bulkhead fitting can be customised to suit the requirements, i.e. Bolted Flange, Flange Nut etc.
- Temperature Range – Standard range -50 to 75°C (we can advise on other temperature requirements)
- Shock and Vibration – Please discuss any special requirements
- Finishes and labelling – Please discuss any special requirements
- Validation and Verification programme and documentation can be provided
- Material traceability to BS EN 10204
- Military specifications can be used if required

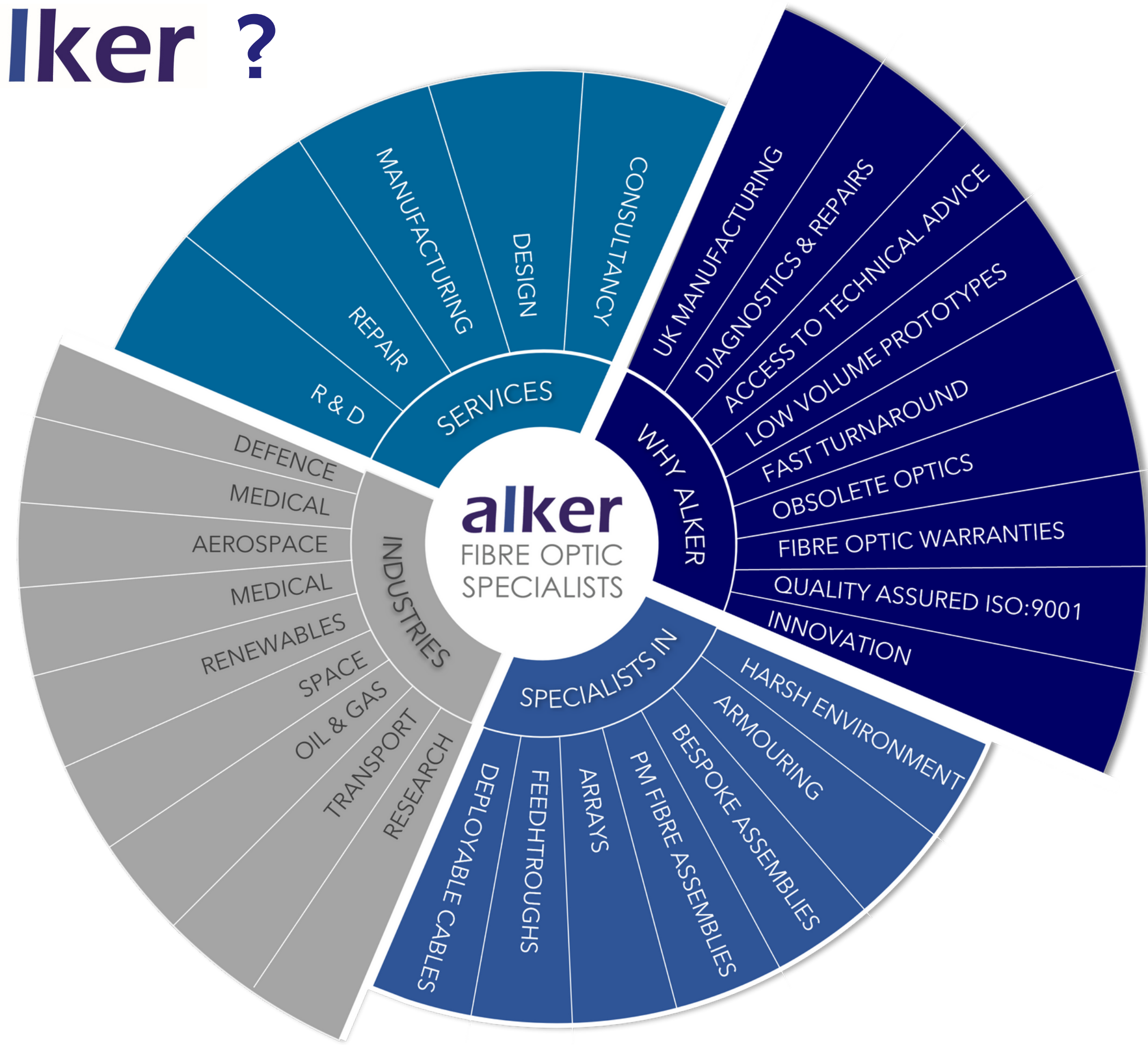
Feedthroughs



Optical Specifications:

- Connectors: FC UPC, FC APC, MPO, MTP (Multiway), SMA 905, SMA 906, ST UPC, E2000, 38999, Harting, Lemo, Senko, Radiall, Aptiv (formerly Delphi), Amphenol, Glenair.
- Fibre mode: Singlemode, Multimode and specialist fibres.
- Multicore Fibre and Fanouts.
- Fibre size: 80µm upwards.
- Fibre core sizes from 4µm upwards.
- Wavelength range: UV/VIS and VIS/NIR.
- Channels: Single and multiple.
- Insertion Losses < 0.5db.
- Polarisation Maintenance Fibres including Panda, Bowtie and Custom.
- Specialist fibres such as; Metal coated and Sapphire fibres.

Why alker ?



How can we help?



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alker.co.uk



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