The background of the entire page is a solid orange color. On the right side, there is a large, dark silhouette of a complex industrial structure, likely a mine headframe or winding system. It features multiple levels, a large horizontal beam at the top, and two prominent spoked wheels. A thick diagonal beam runs from the bottom left towards the top right, intersecting the main structure. The overall aesthetic is industrial and high-contrast.

**ELAND<sup>®</sup>**  
**CABLES**

# MINING

COMPLETE CABLE SOLUTIONS  
FOR DEMANDING INDUSTRIES

# CONNECTING MINING OPERATIONS

Mining projects around the world – surface and underground alike – rely on a network of cables to deliver power and maintain production.

Eland Cables understands choosing the right cable for your project is critical to your operation's ongoing success.

**We perform | We connect | We deliver**





It starts with the cable but there's so much more to it. We take into consideration the installation environment, the country's regulatory requirements, and the specifics of the operation.

### One size does not fit all.

Our portfolio covers low and medium voltage power, instrumentation and control for infrastructure and equipment applications, manufactured to British, European and international standards.

We can support your project with cables that are:



#### LSZH

Essential for underground mining operations to protect mine operators and the equipment from toxic smoke and fumes in the event of fire. We can supply Low Smoke Zero Halogen cables across the range, including Medium Voltage cables.



#### ABRASION RESISTANT

Specifying certain sheathing materials such as rubber compounds can provide much needed protection for flexible and trailing cables from tears, oils and greases, whilst anti-torsion braids and armoring can protect against mechanical stresses.



#### UV RESISTANT

Specifying certain sheathing materials and ensuring a level of carbon black content can provide protection from the sun's UV radiation for cables used externally.



#### PROTECTED AGAINST ATTACK

Additional layers of protection can be added to the cable construction to prevent cable failure through rodent and termite attack. This can include armours, braids, and metallic or fibre glass tapes.



#### IEC APPROVED

Identifying equivalent international standards can help future-proof your mine design, allowing for easier access to cables for both ongoing maintenance and expansion projects.



#### THIRD-PARTY ACCREDITED

Independent third-party certification marks provide valuable assurance of quality for specifiers. This includes the BSI Kitemark as well as geo-specific approvals.



# TRUSTED TO PERFORM

Quality and Compliance are at the heart of mitigating the risk of unplanned maintenance and downtime.

Our commitment to supplying high quality, high performance cables sees us work with quality-conscious organisations around the world.

Commissioning and delivering any project sees you juggling a myriad of responsibilities. Due diligence means when appointing supply partners you want to identify companies that will make the job easier and that you can trust to deliver a product that meets all your expectations.

The strictest quality assurance processes are backed by cable testing in a world-class UK laboratory. We take our responsibilities as cable experts seriously and do all we can to ensure only quality, compliant products are available in the marketplace, including offering compliance testing on third-party sourced cables. It means you can have total trust that your mining infrastructure & equipment cables and accessories meet the highest standards.



## INDUSTRY-LEADING QA

Rigorous quality checks ensure our cables are in optimum condition to be despatched to you. From the bi-annual audits of our manufacturing partner sites, the inbound goods testing, to the pre-export checks, we tightly control the cables and accessories we supply.

## TESTING IN THE CABLE LAB®

Our onsite UKAS accredited laboratory tests cables and provides consistent, impartial results to determine quality and compliance. Extensive capabilities including vertical flame testing, tensile & elongation, conductor resistance, properties after ageing, and RoHS compliance. Offered as testing on third-party cables too.

## BSI KITEMARK™ TESTING

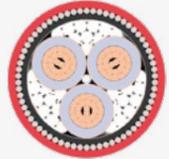
Described by BSI as 'a new benchmark in cable compliance' this in-depth testing certifies the performance safety standards of the cable. Tests each manufacturing run in every core and size configuration for a globally-recognised third-party mark of quality.

# TRUSTED TO CONNECT

Please see our website for the wider portfolio and technical specifications, or speak to one of our team about the cables needed for your specific project and application.

## Creating the infrastructure

### MEDIUM VOLTAGE - BRITISH STANDARD ARMoured 3.3/6.6kV | 6.35/11kV | 12.7/22kV | 19/33kV | 26/45kV



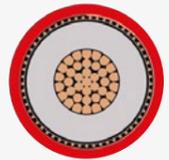
#### Characteristics



#### BS 6622 (PVC) and BS 7825 (LSZH)

Single core AWA or Multi core SWA armoured cable suitable for direct burial. Normally supplied with Class 2 stranded copper conductors but Aluminium also available. Suitable for laying direct into the ground.

### MEDIUM VOLTAGE - EUROPEAN STANDARD UNARMoured 6/10kV | 12/20kV | 18/30kV



#### Characteristics



#### N2XSY (PVC) and N2XSH (LSZH) (COPPER) NA2XSY (PVC) and NA2XSH (LSZH) (ALUMINIUM)

Single core XLPE insulated and PVC or LSZH sheathed power cable with copper wire screen suitable for outdoor static installation without heavy mechanical or tensile strain.

### LOW VOLTAGE - BRITISH STANDARD ARMoured 0.6/1kV



#### Characteristics



#### BS5467 (PVC) and BS6724 (LSZH)

Low voltage Armoured power cables suitable for direct burial. Single core to 1000mm<sup>2</sup> and multi-core to 400 mm<sup>2</sup> with copper conductors supplied as standard. Also available with Aluminium conductors.

### LOW VOLTAGE - EUROPEAN STANDARD UNARMoured 0.6/1kV



#### Characteristics



#### N2XY / N2XH (COPPER) and NA2XY / NA2XH (ALUMINIUM) (PVC / LSZH)

Low voltage European power cable with Class 1 solid (to 25mm<sup>2</sup>) or Class 2 stranded conductor. Single core and multi core configurations, available with or without green/yellow earth core (-) or (-O). Not suitable for direct burial.

#### Characteristics



#### N3GHSSYCY (PVC) and N3GHSSHCH (LSZH)

Flexible energy supply cables designed to supply power to medium voltage (MV) equipment. This range is manufactured in accordance with VDE0250 standard and it is designed to operate effectively in tunnelling and underground mining applications.

#### Worth Noting:

We can supply national standard cables including SANS (South Africa) and AUS/NZ (Australia & New Zealand), or demonstrate the comparable international / European standard for ease of ongoing supply and maintenance.



## Powering the equipment

### LOW VOLTAGE FLEXIBLE POWER - EUROPEAN HARMONISED



#### Characteristics



#### H07ZZ-F (LSZH) (RUBBER)

Robust multi core cables offering flexibility with LSZH sheathing for applications under moderate amounts of stress.



#### Characteristics



#### H07RN-F and H07RN8-F (RUBBER)

Heavy-duty EPR insulated flexible rubber cable for trailing power applications under moderate mechanical and thermal stresses. H07RN8-F suitable for permanent submersion in water to 10m.



#### Characteristics



#### (N)SHÖU / (N)SSHÖU / (N)SSHÖU 3E+ST / (N)SSCHÖU

Surface laying cable to connect heavy-duty equipment in open-cast applications under mechanical stress. The robust rubber sheath protects against notches and greases. Available with submersible to 100m and with a tinned copper wire braiding for electromagnetic screening.



#### Characteristics



#### NSHTÖU / (N)SHTÖU (RUBBER) / (N)SHTÖU PUR

Rubber insulated flexible cable for hoisting and hauling equipment. These drum reeling cables are frequently wound and unwound with both tensile and torsional stresses. For use outdoors. Also available with halogen-free Polyurethane sheathing.



#### (N)GRDGÖU (RUBBER)

Rubber insulated festoon cable for power and control applications in hoists, cranes, and transport equipment under medium mechanical stress and subject to frequent flexing. Designed with anti-torsion braid and for external use.



#### YSLTOE (RUBBER)

Spreader cable for reeling and load lifting equipment operating at high speeds of up to 160m/min. Flexible and robust construction for external use under mechanical stress.



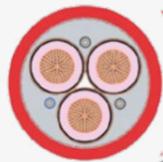
#### NTSCGEWÖU / NTSCGECWÖU / NTSCGECECWÖU (RUBBER) (ZH / ANTI TORSION BRAID / ATB GROUND CHECK / FO / SUBMERSIBLE)

Eland Cables supplies a broad range of (N)TSCGEWÖU flexible mining, drilling and tunnelling cables with voltage ratings of 3.6/6kV and 6/10kV or 8.7/15kV and 12/20kV. This range is suitable for indoor and outdoor applications under the environmental and mechanical stresses generally associated with the mining industry.



#### NTMGEWÖU (RUBBER)

These Medium Voltage (MV) flexible rubber cables have a single core and are principally designed for use as short length connectors of transformers and switchgears, as well as mining equipment power cables and alongside conveyor belts.



### Characteristics



#### FG7H1OAR (PVC)

FG7H1OAR is a flexible power supply cable used to connect medium voltage equipment, specifically for use in tunnelling and underground mining applications with a voltage rating of 3.6/6kV, 6/10kV or 8.7/15kV, 12/20kV.



### Characteristics



#### VFD 2YSLCY (VARIABLE FREQUENCY DRIVE) (PVC)

Eland Cables supplies a comprehensive range of EMC-screened variable frequency drive (VFD) cables including the 0.6/1kV 2YSLCY cable, designed for connecting motors to control drives.

## Controlling and monitoring operations

### CONTROL



### Characteristics



#### YY YSLY (PVC) and HSLH VERIFLEX (LSZH)

Flexible, unscreened LSZH cable for power and signal transmission available from 0.5mm<sup>2</sup> conductor cross-sectional area size and above. Multi core cable also available as a 0.6/1kV power supply. BSI Kitemarked tested for consistency and continuity in use.



### Characteristics



#### CY YSLCY (PVC) and HSLCH VERIFLEX (LSZH)

Flexible cable with tinned copper wire braid screen for electromagnetic compatibility in control and regulation applications. Supplied with black core (white numbers) plus green/yellow core. BSI Kitemark tested.



### Characteristics



#### SY YSLYSY VERIFLEX (PVC)

Flexible cable with steel wire braid to provide additional mechanical protection in addition to electromagnetic shielding in control and regulation applications. Supplied with black core (white numbers) plus green/yellow core. BSI Kitemark tested.

### INSTRUMENTATION

300V (90V and 500V variants also available on request)



### Characteristics



#### BS EN 50288-7 (PVC and LSZH)

European standard instrumentation cables with PVC or LSZH sheathing. Options for collective screening and PiMF (Pairs in Metal Foil). Pairs, triples and quad formations.



### Characteristics



#### BS 5308 (PVC, LSZH and SILICONE)

British standard now withdrawn and superseded by the European standard but still extensively specified. Part 1 Type 1 (XLPE insulation, LSZH or Silicone sheathing) or Part 1 Type 2 (with SWA) available with collective (CAM) or individual and collective (ICAM) screening. Part 2 Type 1/2 cables have PVC insulation and sheathing.

### FIRE PERFORMANCE



### Characteristics



#### STANDARD / ENHANCED GRADE

Fire resistance cables for delivering of power and auxiliary control in fire alarm systems, voice alarm systems, and emergency lighting systems covered under BS5839-1, BS5266 and BS8519. Also available with augmented fire resistance to maintain circuit integrity for up to 120 mins in building with phased evacuation.

# TRUSTED TO DELIVER

You know mining. We know mining cables. Together, our expertise can deliver a solution that works for you.

Our project support services are focused on adding value to your project, delivered by an experienced team.

We work in partnership with consultants and electrical contractors to carry out a build run against agreed project milestones.

You need to work with a team that takes responsibility; who can be flexible, and who understand that getting the right cable to the right place at the right time is paramount to success. You need to work with experts in their field so that you have access to the information you need to keep the project on-track.



## TECHNICAL SUPPORT

Our technical experts are on hand from specification to completion to provide answers to your cable questions. With strong manufacturing backgrounds they sit on standards bodies and committees and can advise on the suitability of a cable across matters of construction, electrical design and compliance.

Our technical support also covers CPD-certified cable training, including courses on CPR.



## PROACTIVE PROJECT MANAGEMENT

Our mining industry specialists put their experience to use so your project runs smoothly, providing the support, flexibility and reactive approach that makes us the partner of choice on large-scale projects.



## TAILORED LOGISTICS

We'll deliver your cables where and when you need them. Phased and planned just-in-time deliveries can be supplemented by ad-hoc requirements.



# A SELECTION OF THE CLIENTS AND PROJECTS WE SUPPORT



"Eland Cables has been providing our site for approximately 3 years. I find their products to be of the highest quality and quite suitable for use here in Mali where temperatures can exceed 50 degrees celsius. Any queries we have had are always answered on the same day, usually within a couple of hours."



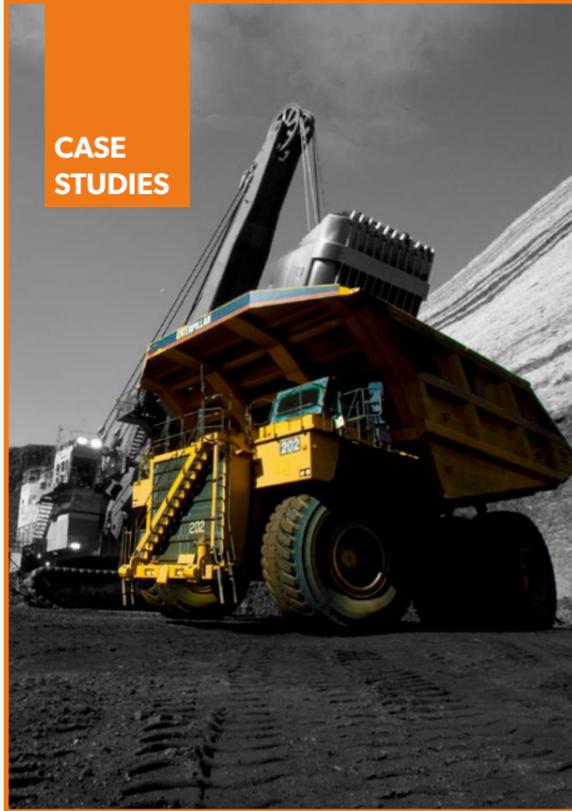
"With regards to the responses received on quotation and your prompt delivery, these were excellent; it was much appreciated and we hope to do more transactions with you based on this."



"Building a gold mine in the current market is all about delivery; the day and even hour you can save has a major effect on the bottom line. Eland Cables has been able to deliver as planned and offered us creative solutions when needed."



CASE STUDIES



## RESOLUTE MALI

### Project Scope:

Full complement of MV and LV power, Instrumentation, Data, Fibre Optic, and flexible trailing cables with accompanying cable harnessing required for construction of the world's first fully-automated gold mine at Syana.

### Eland Cables Solution:

This ongoing construction project sees a combination of technical support and cable & accessories supply to this high-profile project. The cables are supplied from stock holding for this high profile project.

Our technical experts have helped provide IEC standard comparisons and equivalent cables to ensure the ready availability of cables suitable for both initial phases and future maintenance and expansion.

By providing pre-terminated cables in harnessing tailored to their specific design it has saved both time and labour at installation and reduced cable waste.

CASE STUDIES



## BHP BILLITON AUSTRALIA

### Project Scope:

Overhead line wire for a new rail network for the Caval Ridge Mine site to connect to existing infrastructure networks linking with the nearest port terminal 240 km away.

### Eland Cables Solution:

Our technical engineers confirmed specifications for copper cables suitable for medium voltage and low voltage overhead power distribution.

The required 23km of this overhead line wire was available immediately from our extensive stockholding.

The cable needed to be supplied on New Zealand format square spindle hole drums for compatibility with installation equipment. These tailored cable drums were quickly manufactured using heat-treated wood to comply with Australian import regulations.

The cable was then swiftly despatched on it's 15,000km journey to Queensland on an express delivery.

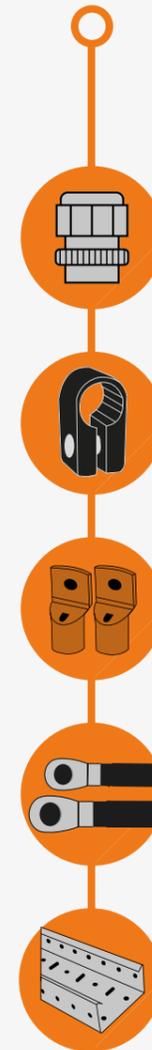
# END-TO-END QUALITY

## Seamless installation with accessories

The integrity of your electrical design depends on the connectors, fixings and terminations too.

It's essential that your cable accessories are sized correctly - it can have a significant impact on the time and ability to terminate the installation. We calibrate the cables to precise dimensions so that accompanying accessories are matched accordingly.

Quality matters with cable accessories too so our portfolio is subject to the same rigorous QA procedures as our cables. Our premium brand accessories deliver the assurance of electrical integrity from start to finish.



### CABLE GLANDS

Our nylon, brass and nickel-plated glands provide high quality connections to equipment. Includes braided, armoured and EMC screened cables. Rated IP68 and IP69K.

### CABLE CLEATS

Support your infrastructure with our premium range of cleats, available in LSZH for public or enclosed spaces or stainless steel. Trefoil and Quad formation cleats also supplied.

### CABLE LUGS

Create secure terminations with our copper lugs. Long palm and dual hole fixings available to suit the installation needs. Cable terminations (cord end terminals) also supplied.

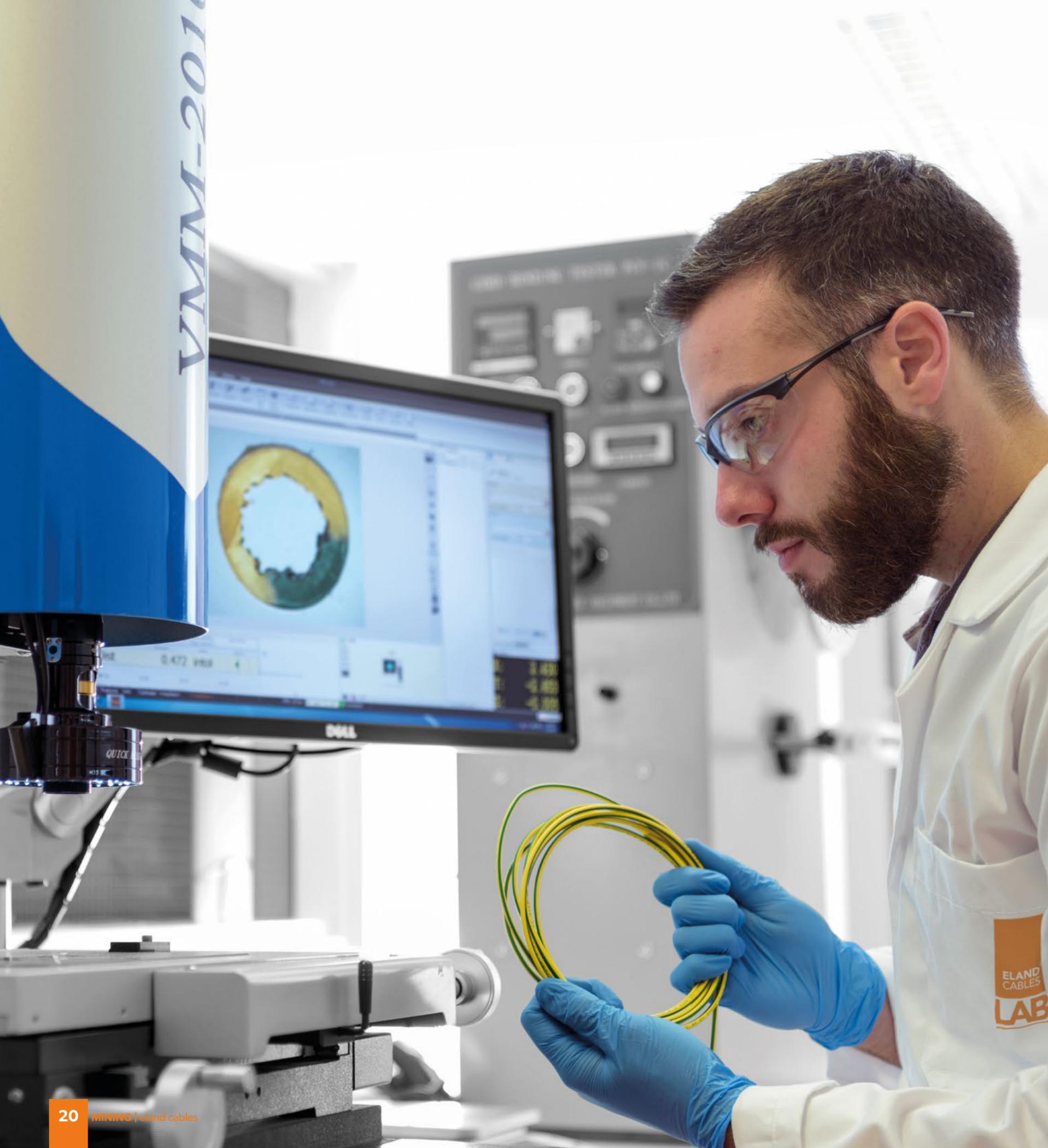
### CABLE ASSEMBLIES

Designed against specific installation plans, pre-cut lengths of cable complete with chosen connector or termination can be supplied when large quantities of the same construction are required.

### CABLE MANAGEMENT

Robust cable basket, tray and ladder (heavy-duty options also available) to support and route your cables around the installation space.

Other cable accessories also available. Accessories can be tailored to meet specific installation demands for pre-termination please speak to the team about cable harnessing.



# CUSTOMISED CABLES

## For when you need something different

Sometimes an off-the-shelf cable isn't right. We can design, manufacture and test a cable that works for your installation.

Whether it's adapting an existing cable or designing from scratch to your unique specification, we can provide the cable that works for you. Designed by our technical experts to relevant standards, manufactured, and tested in The Cable Lab®.

It might be you need additional water-blocking properties, additional screening, or mechanical protection from armour. Resheathing or over-sheathing can adapt a cable to the installation environment, or you may need to design a composite cable running power and data to fit the installation space available.

Geo-specific cable approvals and certifications are sometimes required for installation compliance. Where this is not currently part of our portfolio, we can also support submissions for third-party certifications and regulatory compliance as needed.

Whatever the requirements, we'll supply the new cable meeting your precise needs with speed and efficiency.



# TRUSTED FOR COMPLETE CABLE SOLUTIONS

**We're the cable supply partner the major projects  
work with.**

The 'Eland Experience' is a combination of quality products, expert technical support, and services that add value without adding to your workload.

Our solutions for mining operations are built around a collaborative approach with a team that's always available, whenever you need them. We've delivered projects and continue to support operations for some of the largest copper, gold, aluminium and metal ore mines, including the world's first fully automated site. For each project we've ensured quality, compliance and full traceability, meeting strict development timelines to bring systems online.

We're the cable supplier the industry trusts.

**For more information on how we can support your project, please  
get in touch with our team:**

**UK & Ireland**

tel: 020 7241 8787 - [sales@elandcables.com](mailto:sales@elandcables.com)

**International**

tel: +44 (0)20 7241 8740 - [international@elandcables.com](mailto:international@elandcables.com)

**Technical Support**

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CABLES**



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ISO  
9001  
Quality  
Management

FS 672069

ISO  
14001  
Environmental  
Management

EMS 672067

OHSAS  
18001  
Occupational  
Health and Safety  
Management

OHS 672066



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