

LV-HV CABLE INSTALLATION, JOINTING & ELECTRICAL DISTRIBUTION EQUIPMENT

TRACE HEATING

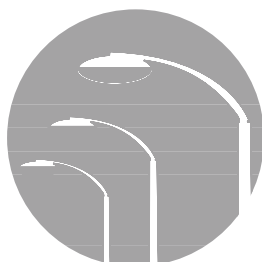


The Service

- **Reliability** – huge stocks and fast response to customer enquiries.
- **Customer Choice** – the most extensive and diverse product range.
- **Value for Money** – high quality competitively priced products.
- **Experience** – expert advice from trained staff.



**Oil, Gas & Petrochem
Electrical Products**



**Street Lighting
Equipment**



**Utility Cable
Jointing Equipment**



**Rail Cable
Accessories up to 72kV**

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1 LV Cable Installation, Jointing & Electrical Distribution

1a Joints, Mains Cabling Accessories & Electrical Tapes

Resin Cast Cable Joint Kits 3M CTL W T Henley Sicame

Straight, branch, multi-service, transition and pot-end kits for XLPE, EPR, PVC and PILC-SWA cables, 600-1000V.

Specialist Market Jointing Kits

- ✦ Mines & quarries joints for power, signal & telephone cables - *see 11*
- ✦ Oil, gas and petrochem hazardous area cable joints - *see 2a*
- ✦ Civil and military airfield lighting cable joints
- ✦ Railway network cable joints - *see 10*
- ✦ Live-working utility cable joints
- ✦ Street lighting - *see 12a*
- ✦ Windpower and renewable energy
- ✦ Submersible pump cable joints

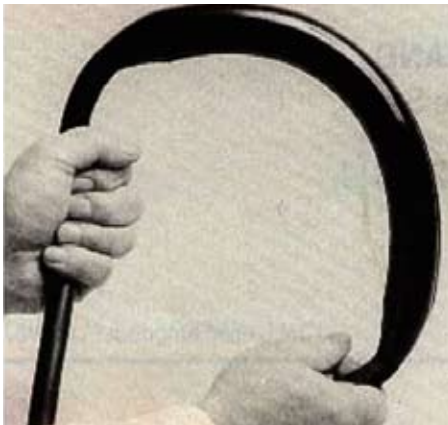
Heat Shrink Cable Joint Kits 3M Hellermann Tyton

- ✦ Safe, fast and simple – no resin to mix, pour and cure
- ✦ Immediate energizing and backfill capability
- ✦ Lightweight, for vertical and overhead jointing
- ✦ Slim profile offers space savings

LSF halogen free and flame retarded cable joints to suit power, control and instrumentation cables

Flexible Cable Joint Kits

'The Banana Joint'.



Flexible Cable Jointing & Repair Kits for coiled, trailing, submerged, outdoor & indoor use. Suits PCP, PVC, EPR & CSP cable.

3M Scotch Electrical Tapes

- ✦ PVC & Glass Cloth
- ✦ Self Amalgamating
- ✦ Mastic, Sealing & Putties
- ✦ Corrosion Protection
- ✦ Fire Resistant & LSOH

Printed Phase ID Tapes



Mains Cabling, Jointing Accessories

- ✦ Cable and wire ID systems
- ✦ Straight and branch mechanical connectors - *see 12b*
- ✦ Antibacterial hand cleaning wipes
- ✦ Cable pulling lubricants
- ✦ Jointing resins, oils and compounds
- ✦ Heat shrink tubings, sleeveings and moulded parts - *see 1c*
- ✦ Cable sheath repair kits - *see 12a*
- ✦ Underground warning tapes, tiles and covers – *see 3b*
- ✦ Cable cleaning and jointing wipes
- ✦ Cable ties, cleats and banding systems - *see 6*
- ✦ Cable laying and protection – *see 3b*



1b Glands, Terminations, Crimps & Cable Abandonment

Cable Glands CMP HAWKE PRYSMIAN

- ★ Indoor (BW) and outdoor (CW) brass gland kits – LSF available
- ★ Unarmoured (A2) brass stuffing gland kits
- ★ Aluminium (CW) gland kits
- ★ Industrial (E1W) and flameproof gland kits (E1WF) – *see 2d*

Cable Crimping Cembre

- ★ Connectors for panel and switchgear builders – pin, blade, ring and fork/spade terminals
- ★ Narrow palm lugs for LV circuit breakers with reduced space terminals
- ★ Copper, Aluminium & Bi-metallic connectors, 1.5-1000sqmm

Cable Terminations

Mechanical Cable Termination Lugs & Connectors SICAME

Designed to terminate copper or aluminium cores (stranded, sector shaped, solid types) without resort to crimping tools and die sets. Install using simple hand tools.

Heat Shrink Cable Terminations Hellermann Tyton

A complete range of LV heat shrink cable terminations to suit XLPE, PVC, EPR and PILC-SWA cables. T&D are stockholders for the United Utilities specified Hellermann Tyton range of pole top cable terminations to suit waveform cables.

Cable Abandonment 3M

For permanent or temporary cable abandonment, permitting the safe de-energisation and termination of live power cables during maintenance.

Seal each core using small end caps, apply a screen earth to reinstate fault protection, over protect with a large cap. Suitable for XLPE/PVC/EPR, lead sheathed, SWA or GSWB cables up to 3.3kV.



1c Heat Shrink Insulation, Sleeving & Moulded Parts

Tubings and Sleeving 'Insulate, Identify, Protect'

Panduit Tyco Hellermann Tyton

Thin wall heat shrink tubings for general purpose, flame retarded electrical insulation in all colours. Industrial application, low fire hazard and high performance tubings are available. Adhesive lined medium and heavy wall tubings provide excellent mechanical protection with impact, abrasion and corrosion resistance.

Also: PVC, PTFE, Neoprene and Silicone sleeveings.

Moulded Shapes Military, Defence & Aerospace specification

- ★ **Cable Break-outs** – insulate and seal multi-core cables.
- ★ **Cable End caps** – environmentally seal exposed cable ends.
- ★ **Cable Boots, Feedthroughs and Transitions** – cable sealing, strain relief and mechanical protection.

Electric Hot Air Guns (110/240v) and Heat Shrink Gas Torches

1d Earthing Products

- ★ Earth Rods
- ★ Earth Plates
- ★ Inspection Pits
- ★ Earth Bars
- ★ Copper Conductor Tape



1e Electrical Distribution, Feeder Pillars, Link Boxes & Fused Service Equipment

'Supplying Power to Building Services, Rail, Dock, Airport, Sewage & Water Treatment, Food & Beverage, Mines, Motorway and Utility sites'

Pre-wired Electrical Distribution Equipment

We can arrange the manufacture of single and three phase equipment customized to client specification incorporating single, double or triple pole Isolator switches, PECU control, timers, fused circuits, MCB's, RCBO's and contactors.

Feeder Pillars

A full range of galvanised pillars with optional coating finishes. Manufactured from 3mm or 5mm steel with single or double doors. which can be supplied pre-wired and custom built to client specification - stainless steel pillars also available.

Fused Service Equipment

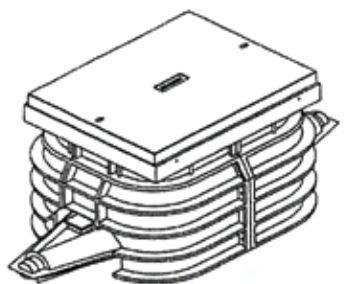
- ★ House Service Cut-Outs, CNE 240/415v
Single pole and neutral, triple pole and neutral models with 60, 80 and 100A fuse carriers
- ★ Four Pole Heavy Duty Cut-Outs 500-630A, 95-300sqmm Cables
- ★ Overhead Service Cut-Outs up to 400A, 600-1000v
- ★ Street Lighting Service Cut-Outs – *see 12d*
- ★ Fused Multi-Service Pillars - a simple method of supplying building services with 240/415v single phase and neutral, or three phase and neutral services
- ★ Multiway Service Heads – 7,10,16 and 24 way units designed to supply up to 100A to each consumer from a centralised point in multi-occupied buildings
- ★ Fuse Links – Industrial, House Service and Street Lighting
Fuse Links – J Type Electricity Supply Fuse Links, 415v
High Voltage Fuse Links



Underground Link Boxes

Underground 2 & 4 Way Link Boxes for 4 core 70-300sqmm CNE cable, available with shroud kit for live-jointing.

Underground Distribution Units enable up to 12 connections with a combination of 3 phase, single phase and street light services. Re-enterability facilitates a 'one man, one stop' visit for disconnection and re-connection of services, fault finding and fault repair.



1f Duct Sealing & Fire Barrier

T&D supply duct seal systems to the Electricity, Water & Gas Utilities to protect against water ingress and gas escape through duct and service entries into substation basements, cable vaults, switchrooms and access manholes. Suitable for new or existing, vacant and multi-entry ducts.

Inflatable – BT Approved Spec LN584

Completely tool free, the system is self-inflating and requires no inflation tooling or gas cylinders – simply wrap the duct seal around the cable and activate for clean, fast and simple sealing.

Mastic Based – BT & British Gas Approved

Highly conformable, non hardening mastic for water proofing and sealing service entries and ducts against the entry of water and gas.

Fire Protection Products

3M Fire Protection Products combat the spread of fire, smoke and toxic fumes providing a 4 hour fire rating – a full range of caulks, sealants, putties and sprays create fire barriers to construction voids and service entries for cables, conduits and pipes.



2 Hazardous Area Cable Installation & Electrical Distribution

2a Joints, Terminations and Abandonment up to 3.3kV

- 3M Scotchcast 1400U resin cable joints suit power, instrumentation and control cables in Zones 1 and 2. 1400U is flame retarded and withstands immersion in hydrocarbons and chemical solvents. Trusted and specified by Shell, Esso, Texaco, BP, Elf and Transco.
- 3M Cold Shrink cable joints, terminations & abandonment kits to suit XLPE/PVC/EPR, lead sheathed, SWA or SWB cables, up to 3.3kV. – see 1b



2b Cold Shrink Joints and Terminations, 6.6, 11 & 33kV

'The cool way to joint cables'

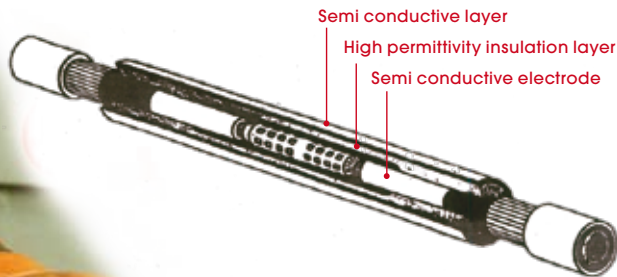


5 Star 3M Performance



- 3M Safety** – eliminate dangerous 'hot-working'. No naked flames, no heat, no gas torch
- 3M Reliability** – 30 year field service history, millions of fault-free worldwide installations
- 3M Labour Saving** – more work in less time means improved worker productivity
- 3M Economy** – reduced shutdown periods limits costly production downtime
- 3M Service** – Thorne and Derrick are 3M's HV Super Stockist – Full range, ex-stock

One piece joints & terminations with stress control, semi-conducting and insulation layer built into a single component. 3M Cold Shrink Systems with 'one-pull' core ensure quick, reliable and safe working.



Also:
11kV flame retarded,
hydro-carbon resistant
1400U resin cable joints.

Take the Heat out of Hazardous Areas with... **3M COLD SHRINK**

Committed to workplace safety

T&D and 3M
Business partners since 1985



2c T&D's Track Record

Since 1985, T&D have accumulated vast expertise supplying LV-HV electrical equipment to hazardous and industrial sites including shipbuilding and offshore fabrication yards, the Royal Naval Dockyards, North Sea oil & gas platforms, petrochemical, refinery and heavy industrial plants.

T&D's products support vital electrical circuits onboard offshore platforms, cable layers, FPSO's, Royal Fleet Auxillary vessels, ocean liners, cruise ships and industrial sites.

T&D hold large stocks of their **Key Product Groups** for use in zone 1 and 2 hazardous areas. We have a strong reputation for the competitive supply of bulk project requirements and also for providing 'same-day kit & ship' response to restore cable outages.

The Hellermann Tyton Powerfast range of heat shrink cable terminations (5-12kV) and jointing kits for power, control and instrumentation cables (1000V) carry the Lloyds Register and DNV Approval for marine and offshore use. They are extensively specified and trusted by the major North Sea Oil & Gas exploration companies.

Our **Key Product Groups** are:

- LV Fire & Hydro Carbon Resistant Power, Control & Instrumentation Resin Cable Joints
- LV-HV Cold & Heat Shrink Cable Joints & Terminations – up to 33kV
- LV-HV Stainless Steel Enclosures, Feeder Pillars & Junction Boxes
- HV Screened Separable Connectors for Switchgear, Transformers & Motors – up to 33kV
- Stainless Steel Cable Supports – Cable Ties, Cleats, Banding & Hangers
- Cable Glands – Industrial and Hazardous Types
- Bulk Electrical Equipment Insulation – Resins, Compounds & Oils
- High Performance Electrical Tapes
- Trace Heating Systems for Process Pipework Temperature Maintenance
- Electric Heating Systems for Drums, Tanks, Vessels and Associated Plant



2d Glands Hawke CMP

Flameproof EEx d and Increased Safety EEx e cable glands for unarmoured, braided and wire armoured cables, including lead sheathed for use in Zone 1 and 2 hazardous areas.



2e LV-HV Stainless Steel Electrical Enclosures ATEX

ABTECH are market leaders in the design and manufacture of stainless steel enclosures for industrial and hazardous area use.

5 core ranges offer over 50 combinations.

Contact us with your requirement.

NEW – Category 3/ Zone 2 Enclosures up to 35kV

Stainless Steel Feeder Pillars - see 1e
Fire Rated Stainless Steel & GRP Enclosures

Model Type	Power W or A	Max Voltage	Max Ways	Notes
MJB	50A	8.3kV	4	simple, low-cost cable connecting and joining up to 240sqmm
DPJB	48.6	11kV	4	the original 'down hole pump' connection box
HVJB	1250A	11kV	4	huge choice of cables, entries and cable terminations
BUSBAR	3000A	11kV	4	capable of connecting 3 phase & neutral and up to 6 cables per phase
LR	1250A	3.3kV	2	mild or stainless steel, 4 flexible sizes, IP66-68



DPJB



MJB



LR



HVJB



Busbar Box



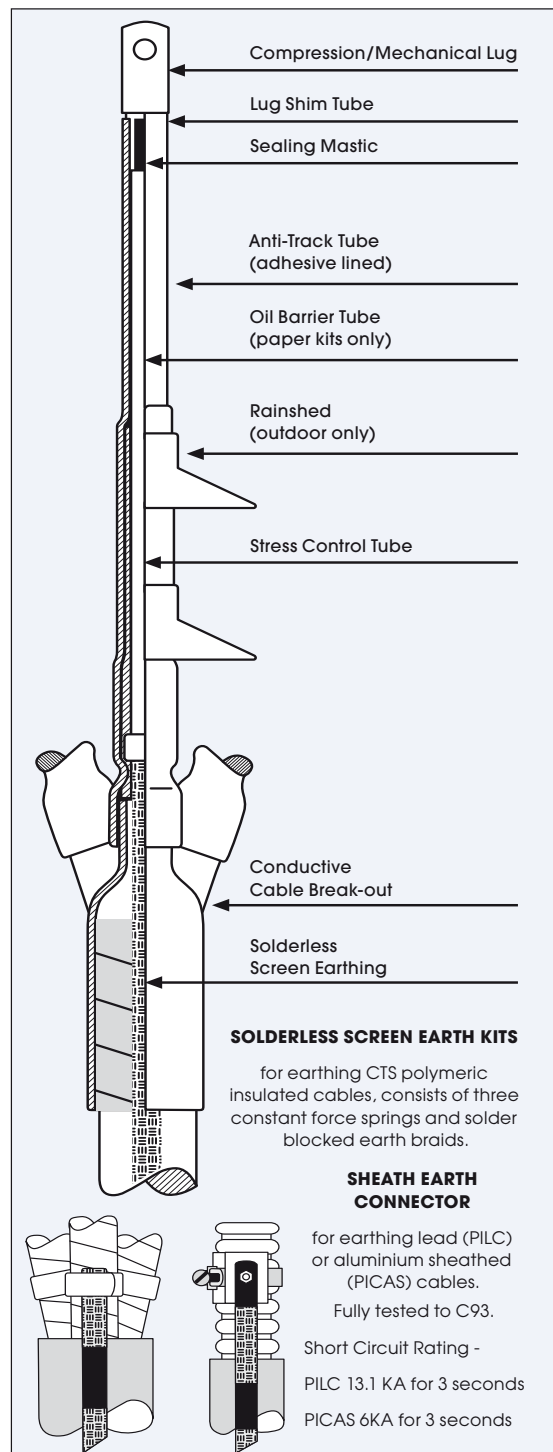
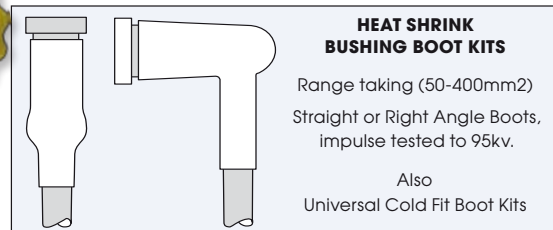
3 HV Cable Installation, Jointing & Electrical Distribution

Made in the UK for T&D



3a POWERFAST Heat Shrink Cable Joints & Terminations

6.6kV, 11kV, 24kV, 33kV, 45kV & 72kV
New Utility Kits to suit 11kV Triplex Cable



CMP HV Cable Glands with Cast Integral Earth Lug for maximum fault protection when terminating polymeric insulated SWA and AWA cables



'At last, a high quality cost effective termination that will give you a competitive edge'

- ★ **Value for Money** – significant cost savings.
- ★ **Jointer Friendly** – no retraining required, cable preparation and installation in accordance with standard practice
- ★ **Peace of Mind** – manufactured to world class specification
- ★ **High Quality** – prestigious customer approvals
- ★ **Regional Electricity Companies** – approved by cable engineers at Central Networks, EDF Energy, United Utilities, Northern Ireland Electricity and Manx Electricity Authority.
- ★ **Switchgear Manufacturers** – trusted and used by leading European switchgear manufacturers.
- ★ **Market Sectors** – extensively installed in the building services, oil, gas and petro-chem, rail, mining, power generation and utility markets. This includes MoD, Network Rail, British Airports Authority, British Ports Authority, London Underground and North Sea oil and gas sites. oil and gas sites.

- ★ **HV Cable Jointing Contractors** – preferred by jointers providing high voltage power engineering services to industry for economy, ease of use and reliability.
- ★ **Export Markets** – via UK and overseas agents we currently supply markets in the Middle East, Africa, Central and Far East Asia and the Caribbean.
- ★ **Lloyds Register Approved** – specified by major oil and gas exploration companies

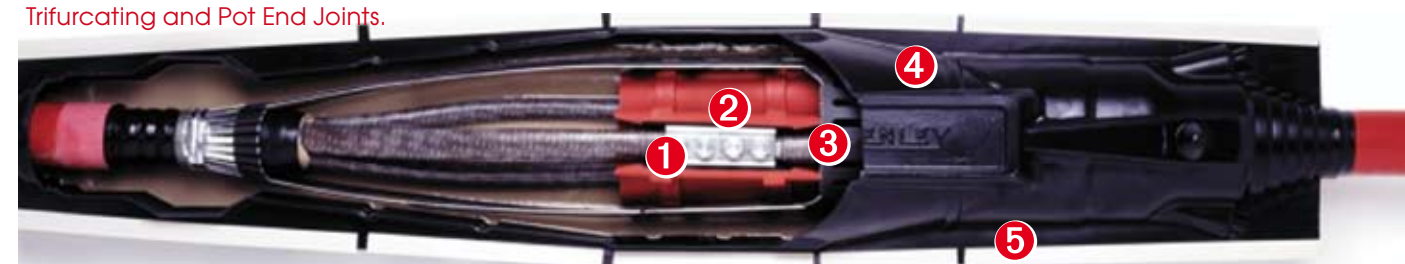
The Complete POWERFAST Termination Range

- ★ 3.3-7.2kV, 3-core and single-core, polymeric and paper cables
- ★ 11kV, 3-core and single-core, polymeric (XLPE/EPR) and paper (PILC/PICAS) cables
- ★ 22kV-33kV, 3-core and single-core, polymeric and paper cables



'The Jointer's Joint' – A quick and easy Universal Industrial Joint from TT Electronics

This unique technology offers the quickest universal solution to the jointing of 3-core polymeric and paper insulated cables either in straight-through or transition arrangement, 6-15kV. Tested to UK Electricity Council Recommendation ERC90, approved and used by many UK electricity supply utilities and contractors. – Also Parallel Branch, Loop, Trifurcating and Pot End Joints.



1 Mechanical Connectors

Conductor jointing is fast and simple utilising shear-bolt type mechanical connectors.

2 Connector Housing

The joint features a unique design whereby insulation reinstatement and stress control are provided by a quick fit rubber housing. A semi-conducting layer as part of the dual construction housing removes high concentrations of electrical stress at the connector interface. No other materials or processes are needed to effect a safe and totally reliable insulated system.

3 Earth Fault & Screen Protection

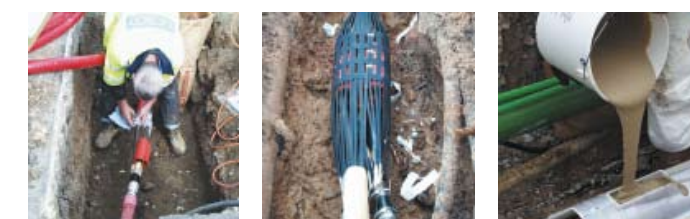
An aluminium earth cage provides both earth fault continuity and effective earth screening. Meets the requirements of CENELEC-HD629.2 and UK Electricity Council Recommendation ERC 90.

4 Quick-Mix Polyurethane Resin

Compatible with all current cable types, resistant to water ingress and possesses high impact strength making it a fast, efficient, cost effective and proven method of joint encapsulation.

5 Joint Shell

The shell is tailored to provide adequate workspace for jointer ease.



3M Cold Shrink 6.6 - 66kV Joints & Terminations – see 2b

T&D supply utility kits to contractors working on behalf of DNO's including Scottish Power, UU, NEDL-YEDL, Scottish & Southern Energy, EDF and Central Networks.

3b Cable Laying & Underground Cable Protection

T&D understand the equipment requirements of the DNO and utility cable laying contractor. We supply a complete range of cable rollers for trench and duct applications, pulling socks, drum jacks, cable covers and services protection products.

Single & double eye cable socks with swivel links.

Straight, corner & leading rollers.



Cable pulling lubricant provides maximum tension reduction for long fibre optic and multiple bend pulls



Cable warning tapes, tiles and covers (plastic and concrete) to protect and identify the exact location of buried services.



Concrete marker posts and blocks identify the exact location of buried services.



4 LV-HV Switchgear & Transformer Equipment

T&D stock an extensive range of LV-HV electrical products to enable the cleaning, refurbishment, manufacture and installation of all types of switchgear and transformers.

4a Screened Separable Connectors, 11-33kV & Inner Core Plugs, 33kV

T&D offer a range of cable connectors to terminate polymeric insulated cables onto inner and outer cone bushings of GIS.

Pfister Inner Cone Plug-in Terminations are fully-insulated, metal-enclosed, touch-safe, zero-maintenance, immersible and durable for outdoor use.

Cooper Power Screened Separable Connectors for Elbow, Straight or Bolted T-type termination of polymeric cables with 250, 400 & 630A current ratings, 6.6-33kV.

A disconnectable, touch-safe termination with a zero failure service record.



4b Busbar Heat Shrink System, 11-24-33kV 'Protects, Repairs, Maintains'

Used for electrical insulation requirements on enclosed buswork and connections, reducing clearances and protecting against flashover. Provides maximum protection on straight or bent, circular or rectangular cross section busbars.

3M Scotchfill Putty for smoothing and rounding out of busbar irregularities.



4c Flexible Busbar & Earth Bonding Assemblies

Heavy duty power interconnections for power distribution units up to 3500A current capacity. Earth bonding assemblies with crimp terminal, swaged ferrule, compressed ferrule or solder dipped.



4d Live Cleaning Equipment Sets, 1000V-33kV

Vacuum operated sets offering dry or damp suction cleaning options for use under live conditions. Dry cleaning work removes loose dust layers while damp cleaning eliminates tough contaminants such as oils.



4e Maintenance Equipment

- ★ LV Fuse Links with Bolted Connections (BS88) – 415V
- ★ HV Fuse Links for Oil Switchgear, Air, Transformer & Motor Applications – 3.3-33kV
- ★ Electrical Insulating Oils & Fire Resistant Oils up to 300°C
- ★ Trinidite Bitumen Compound for Cable End-box and Busbar Chamber Filling
- ★ Cleaning Fluids for Grease, Oil and Contaminant Removal
- ★ Heat & Cold Shrink Insulating Bushing Boots – 11-33kV
- ★ Electrical Switchboard Matting and Cleaning Cloths
- ★ LV Pin, Blade, Ring, Fork & Spade Terminals
- ★ HV Oil Immersed Transformer Bushings
- ★ Voltage Detection Systems and Phase Comparators up to 33kV - see 8



Ultimate Corrosion Protection for Electrical Switchgear, Transformers & Equipment – 93% Pure Zinc Content

POWERFAST



5 Jointing Tools

T&D supply high quality, contractor tools to enable the installation of industrial power & utility cables.



5a Cable Preparation Tools

- ★ LV-HV cable outersheath stripping pliers
- ★ LV-HV cable outer sheath removal tool

- ★ LV Consac cable jointing tools

Sectoral core bending tools, aluminium sheath lifting, punching & cutting tools.

- ★ LV Utility cable preparation tools

Waveform bedding compound removers.

Cable sheath belling tools suitable for 'live working' on aluminium & lead sheaths.

PILC lead sheath stripping tools – enables a clean cut without insulation damage

- ★ HV bonded & peelable screen removers and insulation stripping tools



5b Insulated Tools

A complete range of safety tools for 'live working' up to 1000V including pliers, spanners, hacking and coring knives, socket tools, connector holding tools, wrenches and croppers.



5c Crimping Tools

- ★ Ratchet tools – 0.5-25sqmm
- ★ Hand tools with adjustable Indent Die – 10-120sqmm
- ★ Hydraulic tools – up to 10-400sqmm
- ★ Hydraulic pressheads & foot pump units – up to 1200sqmm

Battery Operated – 10-400sqmm, Copper & Aluminium

- ★ Lightweight for single handed, 'push button' operation
- ★ Double speed action for fast volume crimping
- ★ Rotatable head for tight corner crimping



5d Cutting Tools 'CUT & CRIMP' – T&D – CEMBRE SUPER STOCKIST – request a quote

- ★ Ratchet cutters – cores and unarmoured cables up to 52mm diameter
- ★ Cutters – range of models for cable cores up to 630sqmm
- ★ Hydraulic hand cutters – SWA cable up to 85mm diameter
- ★ Hydraulic cutting heads – SWA cable up to 120mm diameter

Miscellaneous Tools

- ★ Cable spikers for safe and sure cable de-energisation
- ★ Insulated cutting tools to protect against accidental short circuit up to 33kV
- ★ Insulation strippers for EPR & XLPE – 11/20kV, 25-300sqmm, single core cables
- ★ Insulation removal tools for CCC (compacted covered conductor) cable
- ★ LPG heat shrink gas torch kits and electrical hot air guns
- ★ Corrugated aluminium sheath strippers



POWERFAST



6 Cable Ties, Cleats & Banding Systems

Including Hazardous Area Applications



HellermannTyton
Thomas & Betts



6a Nylon Cable Ties

Thomas & Betts, 'The original Ty-Rap', 'Safe & Secure with the Grip of Steel'

T&B supply high quality, flame retardant, halogen free cable ties with stainless steel locking heads for the routing, organising and securing of cables.

We offer the broadest range of cable ties for commercial and industrial construction, plant maintenance and utility cable management. This includes hazardous area plastic cable ties resistant to acids, solvents, oils, greases, petroleum hydrocarbons and temperatures up to 150°C.

Metal Content Nylon Cable Ties – Detectable & Traceable

Improve safety standards and are specified for cable bundling in the food and pharmaceutical manufacturing industries. The ties incorporate a metallic pigment throughout permitting an increased level of detection over standard nylon.



6b Stainless Steel Cable Ties – Ball-lock, Ladder & Releasable types

- ✦ Non-corrosive with excellent resistance to aggressive chemicals, oils and greases.
- ✦ High tensile strength for permanent bundling of heavy cables.
- ✦ Temperature extreme applications – 80-538°C.

Typical applications: Railway & tunnelling, offshore & marine, food processing, nuclear, mines & quarries, petro-chemical, refrigeration & cold store and heavy industrial sites including steel, cement and glassworks.



6c Fire Proof Cable Ties

Red coated stainless steel cable ties are extensively specified for securing fire resistant cables in the following applications: shopping centre smoke venting systems, electrical fire shutters and smoke curtains, fire fighting lifts, smoke dampers and fire alarm cabling.



6d Cable Cleats

T&B stock a complete selection of stainless steel, aluminium and plastic cleats to provide optimum cable restraint and containment in the event of a short circuit situation.



6e Continuous Nylon Cable Ties 'The Universal, High Strength, Cable Bundler'

The perfect solution to large or multi-diameter LV-HV power cable bundling, coaxials, fibre optics and for securing communication cables to messenger strands.

- ✦ Cut to length on site from a spool – **versatility**
- ✦ Customised ties with separate heads for self assembly – **flexibility**
- ✦ High break strein, 1110N – **strength**
- ✦ Halogen free, UV stabilised – **permanent**
- ✦ Reduced inventory, eliminate wastage – **economical**

All Round Band

Available in galvanised and stainless steel with plastic coating for securing pipes, cables and conduits.



6f Exotic metal banding

For superior strength applications with excellent resistance to aggressive chemical corrosion and extreme high temperatures. Typical areas include: subsea, seawater splash zones, coal and oil fired power stations, thermal processing and the chemicals industries.

6g Cable Hangers

A complete range covering up to 6 cable runs with up to 100mm diameter cables, made from galvanised mild steel.



POWERFAST

7 Electrical Safety Equipment

**Do not lose a second...
...CATU Life Saving & Rescue
Intervention Kits 24kv & 33kv**

Rescue Hook

Voltage Detector

Insulated Platform

Insulated Boots

Telescopic Rescue Stick

Insulated Cable Cutters

Insulated Gloves

Safety Instructions



T&B are the UK's main stockist for the **CATU** range of LV-HV Electrical Safety Equipment : insulated gloves, insulated tools, life rescue kits, voltage detectors, short-circuiting and earthing systems.

With the support of **CATU**, T&B service the safety requirements of the high voltage power distribution and North Sea oil and gas industries.

Fulfil complete requirements of IEC standards

Safety First for...

High Voltage Substations & Switchgear

The Oil & Gas Industry

7a Low Voltage up to 1000v

Get Your Kit On

- ✦ Head & Eyes Protection
- ✦ Insulating Rubber Gloves
- ✦ Insulating Mats & Boots
- ✦ Short Circuiting & Earthing Systems

Insulated Tools EN60900 & IEC60900

The CATU ISOMIL range of insulated tools for working up to 1000 volts are the electricity supply industry standard for operator safety.



7b High Voltage 3.3kv to 52kv

CATU Head & Eyes Protection

CATU Insulating Rubber Gloves

CATU Insulating Mats & Platforms

CATU Short-circuiting & Earthing systems

CATU Short-circuiting & Earthing systems for Seperable Connectors

CATU Voltage Tester for Seperable Connectors

CATU Voltage Detectors - 3.3kv to 33kv

CATU Phase Comparators - 3.3kv to 33kv

CATU Insulating Sticks

CATU Life Saving Kits



POWERFAST



8 Rail Products

T&D distribute an extensive range of LV-HV cable jointing and electrical equipment for railway infrastructure projects including main line, mass-light transit and underground systems.



8a 3M Cold Shrink Cable Joints & Terminations

Trackside, Tunnel & Overhead Cable Jointing & Terminating 1000v-72kV

"Due to the use of 3M Cold Shrink terminations we are able to use 60m to 80m less cable per side per tunnel or bridge. Network Rail has forecast an approximate saving of three million pounds over the next stage of the WCML project."
Alan Telfer – ATKINS

3M Cold Shrink cable joints and terminations offer faster, safer and simpler installations without the dangers and hassles of "hot-working" - no naked flames, no gas torches, no cannisters, no "hot-work" permit applications.

The 3M Cold Shrink range of 52kV cable joints and terminations are ideal for auto-transformer/dual 25kV electrification systems and are in service throughout the Network Rail system including HS1 and WCML projects.

- ✱ 3M Cold Shrink Joints & Terminations
- ✱ 3M LV Cable Joints for Signalling & Telephone Cables
- ✱ 3M LV Cable Termination for 500, 630 and 1000sqmm Cables
- ✱ 3M LV Track Feeder Cable Joints & Terminations
- ✱ 3M HV 24kV Cable Jointing Kits XLPE Single Core, 95-300sqmm
- ✱ 3M HV 33kV Cable Jointing Kits XLPE Single Core, 120-400sqmm
- ✱ 3M HV 33kV Cable Termination Kits XLPE Single Core, 95-400sqmm
- ✱ 3M HV 33kV Cable Termination Kits XLPE Single Core, 400-630sqmm
- ✱ 3M HV 52KV Cable Termination Kit XLPE Single Core, 240-500sqmm



3M

8b LV Electrical Distribution Enclosures & Junction Boxes

Trackside Heavy Duty Cable Termination & Junction Boxes
Switch Points Heating Cubicles
Switch Points Heating Transformer Units
Trackside Power Supply Pillars for Signalling, Lighting & Points
Electrical Enclosures for Tunnel Cabling Applications



8c LV Feeder Pillars

- ✱ Single Door Feeder Pillars
- ✱ Double Door Feeder Pillars
- ✱ Mini Feeder Pillars
- ✱ Micro Feeder Pillars

8d LV Heat Shrink Cable Joints for Signal, Telecom & Power Cables

Working in conjunction with Network Rail and their contractors, T&D have developed cable jointing and installation kits with P.A.D.S approval.

- ✱ Zero Halogen, LSF Power & Control Cable Joints
- ✱ Flexible Tail Cable Joints
- ✱ Lineside Multicore Signalling Cable Joints
- ✱ Track Circuit Cable Joints
- ✱ Data Link Cable Joints
- ✱ CCTV Coaxial Cable Kits
- ✱ Power Cable Joints for Stranded Copper & Solid Sectoral Aluminium Conductors
- ✱ Heat Shrink Wraparound Cable Repair Kits for Power, Signal & Telecom Cables
- ✱ Heat Shrink Cable Glands for Railway Signalling Cables

8e Screened Seperable Connectors for High Voltage Cable Termination

Screened cable connectors are shown here cable terminating single core 33KV cable into a trackside transformer providing a disconnectable, touch-safe cable termination - standard engineering practice for Network Rail infrastructure with over 1000 units in service.



8f Cable Detection

Cable detection tooling is designed to reduce on site strike incidents by reducing human error – EziCAT models switch on into power function with full sensitivity mode – this technological advance replaces old error prone manual controls improving health and safety and reducing cable strikes.

Cable Detection - EziCAT100 Network Rail Approved PADS No. 094/020050

Designed to avoid damage to underground services during excavation – automatic pinpointing function for quick and accurate location of electricity services.

Cable Detection - EziCAT200 Network Rail Approved PADS No. 094/020075

Same features and functions as EziCAT100, used in conjunction with signal generator in order to provide depth readout up to 3 metres.

Cable Detection - EziTrace Signal Generator Network Rail Approved PADS No. 094/020052

Enables the accurate tracing and locating of underground cable routes that do not carry a naturally present signal.

Cable Detection - EziMAP Locator

Same features and functions as EziCAT200 with additional Bluetooth wireless data transfer to suitable GPS equipment.



8g Cable Support Systems

T&D distribute cable ties, cleats and banding systems for all rail cable installation applications.

– see *Cable Ties, Cable*

- ✱ Cable Hangers for Tunnel Cabling Support
- ✱ Outside Serrated Cable Ties for Signal Cabling N Rail Approved



POWERFAST

POWERFAST



9 Mines & Quarries

Plugs, Couplers, Adaptors & Accessories

Victor Mining Products

Restrained and bolted plugs are used for the termination and connection of flexible trailing and drill cables on movable and fixed electrical equipment in deep and opencast mine environments. A complete range of couplers and adaptors for the termination and connection of mains cables including SWA, DWA, braided, lead sheathed and unarmoured, in deep and opencast mine environments, 3.3, 6.6, 11kV up to 500A.

- ✦ 3M Mines & Quarries LV-HV Cable Joints (NCB Spec) for power, signal and telephone cables.
- ✦ BAND-IT Stainless Steel LSF High Strength Cable Ties.

10 LV-HV Electrical Enclosures & Cable Boxes

An extensive range of industrial, high voltage and hazardous area enclosures and junction boxes in stainless steel, mild steel, GRP, aluminium and polycarbonate. Junction boxes are available as empty housings or with fitted terminals and optional coloured cover choice for circuit identification.

High voltage cable boxes for 11kv, 24kv and 33kv oil and air applications.



10b Hazardous Area Electrical Enclosures

Stainless Steel & Mild Steel Electrical Enclosures

- ✦ -70 to 130D
- ✦ Up to IP68
- ✦ Fire Resistant to IEC331
- ✦ Corrosion Resistant

Aluminium Electrical Enclosures

- ✦ -70 to 130D
- ✦ Up to IP67
- ✦ Corrosion Resistant
- ✦ Painted Option

GRP Electrical Enclosures

- ✦ -70 to 130D
- ✦ Up to IP68
- ✦ Fire Resistant to IEC331
- ✦ UV Resistant
- ✦ Low Smoke Zero Halogen

Highly resistant to contamination from oils, fats, aliphatic and aromatic carbohydrates, bacteria and enzymes.

Polycarbonate Electrical Enclosures

- ✦ Lowest cost hazardous area junction boxes
- ✦ -20 to 40DC
- ✦ IP65

Fire Rated Electrical Enclosures

- ✦ -GRP, Mild & Stainless Steel



10b Specialist Application & Submersible Enclosures

Control Stations

- ✦ GRP suitable for most gas groups and dust hazard environments

Control Stations

- ✦ Stainless steel suitable for most gas groups and dust hazard environments

Submersible Enclosures

- ✦ For underwater and offshore installations

High Current Enclosures

- ✦ up to 3000A

Extreme High Temperature Enclosures

- ✦ 950°C 3 Hours



10b High Voltage Electrical Enclosures in Hazardous Areas



DPJB



MJB



LR



HVJB



Busbar Box

ABTECH are market leaders in the design and manufacture of high voltage, 316 stainless steel electrical enclosures for use in hazardous areas.

- ✦ HV Cable Box Specifications
- ✦ HV Cable Box DPJB
- ✦ HV Cable Box MJB
- ✦ HV Cable Box LR
- ✦ HV Busbar Cable Box BB

Model Type	Power W or A	Max Voltage	Max Ways	Notes
MJB	50A	8.3kV	4	simple, low-cost cable connecting and joining up to 240sqmm
DPJB	48.6	11kV	4	the original 'down hole pump' connection box
HVJB	1250A	11kV	4	huge choice of cables, entries and cable terminations
BUSBAR	3000A	11kV	4	capable of connecting 3 phase & neutral and up to 6 cables per phase
LR	1250A	3.3kV	2	mild or stainless steel, 4 flexible sizes, IP66-68

10b High Voltage Cable Boxes

High voltage cable termination boxes for 6.6kv, 11kv, 24kv and 33kv cables - including oil and air insulated applications with single or multiple cable terminations, up to 630sqmm single core, 300sqmm multi-core cable. Cable boxes are suitable for compound-filled, cold shrink or heat shrink cable terminations up to 33kv with optional cable glanding and bushing arrangements.



11 Street Lighting

T&D are Specialist Distributors of Street Lighting Electrical Equipment to local authorities, private lighting contractors and distribution network operators.

11a Cable Jointing, Repair Kits & Underground Distribution

Straight, branch, multi-service and pot end kits for XLPE/PVC-SWA and utility cables.

- ✦ Highways Agency approved CTL Clearcast, 3M Scotchcast & Powerfast resin joints
- ✦ Live-working utility specification joints for waveform cables
- ✦ Single and 3 Phase CNE heat shrink service joints and pot end kits
- ✦ Underground Link Boxes for 70-300sqmm 4 core CNE cable

Underground warning tape with optional detection wire for above ground location of buried cable

Heat shrink wraparound cable repair sleeves

11b Mechanical Cable Connectors

Brass connectors with Allen keys for straight through, range taking jointing.

Live cable connectors for jointing new services (16-35sqmm) to existing mains (70-200sqmm).

Service connectors for aluminium/copper cores, sector/round, stranded/solid - straight or mains branch including services.

Utility application connectors for PVC insulated concentric service cable, paper-insulated (CONSAC & PILC), stranded aluminium and copper neutral/earth (CNE) conductors and waveform applications.



11c Feeder Pillars - see 1d

Traffic signal, mini, single and double door pillars, hot dip galvanised with optional finishes in a vast variety of sizes to meet all specifications.

Ultimate corrosion protection for street furniture, columns and feeder pillars – 93% pure zinc content



11d Cut-outs and Safety Isolators

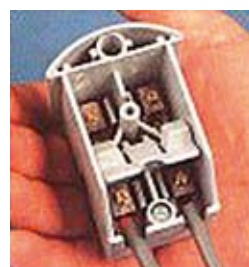
With a focus on offering excellent customer and to meet diverse local authority engineering specifications, T&D distribute market leading street lighting cut-outs for the electrical protection of highway lighting and street furniture.

Charles Endirect

- ✦ DPM – double pole miniature units are the most compact units for limited access locations such as highway signs, traffic bollards, small lighting columns and pillars.
- ✦ FD – single and double pole units accommodating cables up to 35sqmm.
- ✦ LSI – Lockable Safety Isolator.



The DPM
Width - 58mm
Height - 80mm
Depth - 61mm



Lucy Lighting

Titan single and 3-phase cut-outs, Trojan double pole lockable isolators and double pole fuse units with 'cam lever' for fast removal.

WT Henley

This single phase model not only allows the looping in and out of the incoming supply, but when used in conjunction with optional connectors and terminal shrouds, may also be used with a 3-phase supply – CNE or SNE versions.



Wiring capabilities

- ✦ Single phase cables up to 16sqmm copper, 25sqmm aluminium.
- ✦ 3-phase cables: incoming – loop in/loop out up to 35sqmm copper/aluminium; outgoing – two ways for up to 16sqmm copper.
- ✦ Armoured cables up to 4 core, 16sqmm copper – loop in/loop out.

11e Belisha Beacon Units

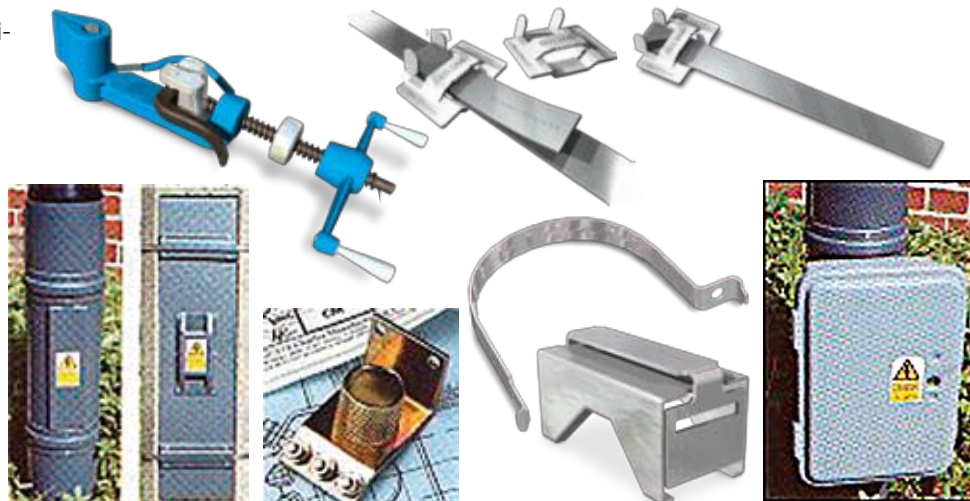
'The cleaner, lighter, brighter, stronger globe'

- ✦ Anti vandal – virtually unbreakable, minimum 5 year service life.
- ✦ High visibility and luminescence levels.
- ✦ Improved strength, working life and performance.



11f Signfixing and Column Installation Products

- ✦ Stainless steel band, buckles, anti-rotational sign clips and tools.
- ✦ Sign channel, plastic post caps and column base plates.
- ✦ Central earth terminal (CET) – accepted standard for stand off SWA glanding.
- ✦ Emergency column doors and temporary supply doors.
- ✦ Traffic industry resins for cabinet base sealing and back filling.
- ✦ Column identification and numbering plates.
- ✦ Cable pulling socks.



12 LV Fused Distribution & Feeder Pillars

T&D design and supply LV distribution and fusegear equipment for the electricity supply industry – this is complemented by a full range of galvanised, stainless steel, cast iron and GRP feeder pillars.

LV Electricity Distribution Equipment

*Building Services Street Lighting Oil & Gas Rail & Metro Ports Water Power Stations
Mines & Quarries Airports Food & Beverage Chemicals*

T&D design and supply single and three phase distribution equipment customised to client specifications : this can incorporate isolator switches, PECU, contactor or timer control, heaters, circuit breakers, fusegear and cable terminations.

Long Life, Low Maintenance

Made from 5mm sheet steel, hot dip galvanised, powder coat painted for UV resistance, IP65 rated and fitted with anti -vandal security locks.

Reduced Cost, Increased Efficiency

Locatable close to the electricity supply point thereby reducing the amount of cabling required, cutting installation costs and resultant running costs.

Release Premium Building Space

Where space is unavailable for bulky indoor switchgear, compact outdoor feeder pillars liberate high-demand, indoor floor space

Delivered to Site Ready to use

Fully assembled and fitted out to customers specification for fast site installation

Expand for Future Demand

Spare capacity built into feeder pillar design permits retrofitting and upgrading of control, monitoring and extra circuit equipment



Fused Distribution Equipment

Henley Multi-Service Pillars

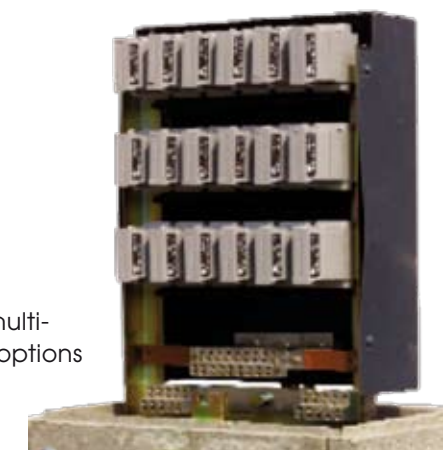
Simple, safe and reliable low voltage supply to rural housing, caravan sites and holiday chalets with simple protection and isolation – 60,80 or 100a versions.

4 Way Triple Pole & Neutral (12 Way Single Pole & Neutral) *

6 Way Triple Pole & Neutral (18 Way Single Pole & Neutral) *

Henley Multi-Way Service Heads

Simple, safe and cost effective low voltage supply from a centralised point to multi-occupied housing developments. 7, 10, 16 and 24 way units with 60, 80 or 100a options and suitable for CNE and SNE cables up to 300sqmm.



Lucy Indoor Distribution Boards

Fully shielded low voltage distribution board, up to 12 outgoing ways, 800 or 1600amp busbar rating or 630amp rated triple pole outgoing circuits with provision for BS88 J type fuse links.

Lucy Transformer Mounted Fuse Distribution Cabinets

Fully shielded low voltage distribution board - 2,3,4,5 or 6 outgoing ways, 800 or 1600amp busbar rating or 630amp rated triple pole outgoing circuits with provision for BS88 J type fuse links.



Merlin Gerin Wall Mounted Fusegear

Wall mounted fusegear rated from 20-630a, single and three pole for commercial and industrial switching and protection applications.

Switch Disconnect Fuse 20A-100A SP&SwN TP&N

Switch Disconnectors 20A-100A SP&SwN TP&N

Fuse Switch Disconnectors 100A-630A TP&N

Busbar Chambers

- ✦ Fully rated to switch motor circuits and highly inductive loads (AC23)
- ✦ Heavy duty padlockable handles, fully interlocked
- ✦ Removable cable gland plates and doors to ease cable termination



Feeder Pillars

Building Services Street Lighting Oil & Gas Rail & Metro Ports Water Power Stations Mines & Quarries Airports Food & Beverage Chemicals

The Lucy Lighting range of feeder pillars for LV distribution are available in galvanised, stainless steel and cast iron with numerous sizes and designs to suit all projects – contact us with your feeder pillar specification requirement.

Lucy Feeder Pillars

Single Door Feeder Pillars
Single Door Feeder Pillars

Galvanised & Stainless Steel

Galvanised Steel
Stainless Steel

Lucy Fortress

Lucy Fortress
Lucy Fortress
6 size feeder pillar range

Double Door Feeder Pillars
Double Door Feeder Pillars

Galvanised Steel
Stainless Steel

Lucy Fortress
Lucy Fortress
9 size feeder pillar range

Mini Feeder Pillars
Mini Feeder Pillars

Galvanised Steel
Stainless Steel

Lucy Fortress
Lucy Fortress
7 size feeder pillar range

Micro Feeder Pillars

Lucy Fortress
4 size feeder pillar range

Traffic Signal Feeder Pillars
Feeder Pillar Anti-Vandal Locks

Lucy Fortress
Lucy Fortress

*Single Door Feeder Pillar
Micro Feeder Pillar*



Lucy Feeder Pillars Cast Iron Lucy Heritage

- ✦ Feeder pillars designed for increased weather protection, security and service life – variety of sizes, locking arrangements and colour options.

9 size feeder pillar range



Feeder Pillars Network Rail Approved A-Belco

- ✦ Feeder pillars designed to provide trackside power supply and distribution to signalling, lighting and points applications.
- ✦ Custom built stainless steel feeder pillars can be fitted out with MCB, MCCB, fuse boards, contactors, transformers, metering, isolators and fuse switches to suit electrical specification.

Network Rail Feeder Pillar to NR/SP/SLP 40045 Issue 5



13 LV-HV Fuse Link and Cut-Outs

Lawson fuse links guarantee safe and reliable circuit protection for low voltage electricity distribution systems while the SIBA range covers all high voltage fuse link applications.

We stock the complete range of cut-outs: house service, street lighting, industrial, heavy power and overhead service cut-outs.

13a Low Voltage Fuse Links

- ✦ 240/690v Semi-conductor Protection Fuse Links
- ✦ 400/415v Industrial Fuse Links with Bolted Connections
- ✦ 660/690v Industrial Fuse Links with Bolted Connections
- ✦ 400/415v Electricity Supply Distribution J Type Fuse Links
- ✦ 400/415v House Service Cut-out Fuse Links
- ✦ 230/240v 400/415v Compact Dimension Fuse Links
- ✦ 230/240v Street Lighting Cut-out Fuse Links
- ✦ 400/415v Motor Protection Fuse Links
- ✦ 400/415v General Purpose Fuse Links
- ✦ 500v NH-System Fuse Links with Knife Blade Contacts
- ✦ 500v Diazed Fuse Links
- ✦ 400/440v Neoazed Fuse Links
- ✦ 400/500/660v Cylindrical Fuse Links

Lawson J Type Fuse Links, typical applications: distribution boards, feeder pillars, link boxes and pole mounted cut-outs.

American, Reyrolle and Arctic Pattern fuse links with associated fuse blocks are available.



13b High Voltage Fuse Links

HV fuse links for high voltage switchgear, transformers and motor applications.

HV Fuse Links for Oil Insulated Switchgear	3kv to 24kv
HV Fuse Links for Oil Insulated Transformers	3kv to 33kv
HV Fuse Links for Motor Circuit Protection	3kv 6.6kv 11kv
Distribution Transformer	3.3kv to 33kv
Voltage Transformer	3.3kv to 33kv
Motor Circuit Protection	3.3kv, 6.6kv, 1kv
Capacitor Protection	3.3kv to 33kv
Indoor Switchgear Air Insulated HV Fuse Links	3.3kv to 33kv
Indoor Switchgear Oil Insulated HV Fuse Links	3.3kv to 24kv
Indoor Switchgear Gas Insulated HV Fuse Links	3.3kv to 33kv

DIN Standard, Wind Turbine Transformer Fuse Links to 33kv

Remote Indication for HV Fuse Links 6.6 to 33kv



13c House Service Cut-Outs

Henley cut-out ranges are available as single pole cut-outs, single pole and neutral cut-outs and triple pole with neutral cut-out versions - 240/415v, 60a, 80a or 100a rated, up to 35sqmm cables.

Henley **Series 5 House Service Cut-outs** for SNE & CNE systems including PILC cables

Henley **Series 6 House Service Cut-outs** for SNE systems

Henley **Series 7 House Service Cut-outs** for CNE systems

Henley **Series 7 Close Coupled House Service Cut-outs** are specially designed to prevent the theft of unmetered electricity via tap-offs between the cut-out and meter.



13d Overhead Service Cut-Outs

A safe and reliable cut-out providing rural dwellings with LV power supply.

Compact, single pole cut-outs up to 400A and suitable for LV cable terminations, 70-300sqmm.

13e Heavy Duty Four-Pole Cut-Outs

Electricity supply industry cut-outs suitable for LV cable terminations, 95-300sqmm.



200-400A 4 Pole Cut-out 500-630A 4 Pole Cut-out

14 Earthing

T&D are stockists of Furse Earthing & Lightning Protection equipment. Contractors throughout the UK choose Furse earthing systems from T&D for high strength and reliable earthing at comparatively lowest cost.

Project Design

T&D, Furse Approved Earthing System Designers Call for T&D for Furse support on your next project

Earthing Tape

Furse earthing tape forms the most important component of earthing protection systems.

Bare Copper Tape **PVC Covered Copper Tape** **Aluminium Tape** **PVC Covered Aluminium Tape**

Earthing tape ranges from 12.5 x 1.5mm to 50mm x 6.3mm

Earth Rods

Earth rods provide effective earthing for all site conditions – made from 99.9% pure electrolytic copper, highly corrosion resistant with very high tensile strength.

Earth Rod Clamps

Earth rod clamps permit the periodic disconnection of earthing systems for testing.

Conductor Fixings

A supporting range of Furse fixings to complete the installation of Furse earthing systems.

Earth Plates

Earthing plates provide an effective earth in shallow soils or high voltage switching rooms.

Furse Earthing Plates – Lattice Furse Earthing Plates – Solid Copper

Earth Inspection Pits

Inspection pits facilitate regular inspection and testing of earthing systems, plastic and concrete available.

Earth Bars

Earth bars provide a convenient common earthing point with single or twin disconnecting links which means the earth bars can be isolated for testing.

6 Way to 30 Way Furse Earth Bars

6 Way to 30 Way Furse Earth Bars with single disconnecting link

6 Way to 30 Way Furse Earth Bars with twin disconnecting link

Custom built Furse earth bars available

15 LV-HV Cable & Diagnostic Equipment

T&D distribute high quality LV-HV cable jointing tools to enable the preparation, cutting and crimping of all cables. Our cable diagnostic equipment includes LV-HV cable fault locators, cable detection, phase identification and HV cable testing sets – site demonstrations available.

15a Cable Fault Location For LV & HV Cable Networks

Cable fault pre-location and fault finding equipment, including sheath fault location for use throughout LV-HV cable networks utilising TDR, ICE and ARM technologies.

TDR LV Cable Fault Locators

TDR HV Cable Fault Locators for use with surge generators and HV dc

Street Lighting Cable Fault Locators

25kv HV Cable Fault Locators

40kv HV Cable Fault Locators

LV-HV Cable Fault Pin-Pointing Surge Wave Receiver

Cable Sheath Fault Locator Pin-Pointer

Cable Sheath Tester & Fault Pre-Locator

Cable Sheath Fault Pre-Locator HV Bridge



15b High Voltage Cable Test Sets

Cable testing and diagnosis equipment following high voltage cable jointing, terminating, installation or repair.

✦ HV Cable Test Set up to 25kV for Cables, Cable Joints, Terminations & HV Eqpt

✦ HV Cable Test Set up to 40kV for Cables, Cable Joints, Terminations & HV Eqpt

✦ HV Cable Test Set up to 110kV for Cables, Cable Joints, Terminations & HV Eqpt

✦ HV Tester 50-80-110

✦ HV Cable Sheath Test Set up to 10kv dc MMG5 MMG10

✦ HV Partial Discharge Locator



15c Cable Phase Identification

Work on low voltage networks is increasingly carried out under live voltage which necessitates unequivocally correct cable identification prior to cable jointing, maintenance and repair.

✦ Cable Identification LV

✦ Cable & Phase Identification LV

✦ Phase Identification in Earthed & Short-Circuited HV Cables

16 Cable Detection

Cable detection tooling is designed to reduce on site strike incidents by reducing human error. **EziCAT** models switch on into power function with full sensitivity mode – this technological advance replaces old error prone manual controls improving health and safety and reducing cable strikes.

Cable Detection EziCAT100 Network Rail Approved PADS No. 094/020050

Designed to avoid damage to underground services during excavation – automatic pinpointing function for quick and accurate location of electricity services.

Cable Detection EziCAT200 Network Rail Approved PADS No. 094/020075

Same features and functions as EziCAT100, used in conjunction with signal generator in order to provide depth readout up to 3 metres.

Cable Detection EziTrace Signal Generator Network Rail Approved PADS No. 094/020052

Enables the accurate tracing and locating of underground cable routes that do not carry a naturally present signal



17 Plugs, Sockets and Decontactors

17a Industrial Decontactors

The complete range of Marechal decontactors for LV power supplies including standard industrial, high current and hazardous areas with ATEX certification.

With the support of Marechal, T&D provide nationwide on-site surveys and recommendations to optimise low voltage power distribution for the following applications:

Motors, Pumps & Mobile Eqpt incl. Offshore Food, Chemical, Water & Port Authorities Heavy Industry, Generators, Mines & Quarries, High Temperature Applications, Manufacturing and Production Lines, High Current Applications (315-600A), Port Authorities, Mines & Quarries, Heavy Industry, Water Treatment & Power Distribution.



17b Hazardous Area Decontactors

Marechal Decontactors DXN Hazardous Area

Chemical, Oil & Gas, Grain Silo, Fertiliser, Plastics, Pharmaceutical Industries

17c Industrial Plugs, Sockets, Connectors A-BELCO

T&D distribute the A-BELCO range of industrial plugs and sockets plus custom built units for industrial, marine and offshore, port authorities, chemicals, mines and quarries, power and rail.

✦ Easigo Reyrolle Industrial Plugs & Sockets

✦ Easigo Fuse Switch Sockets with Rccb Protection

✦ CEEGO Heavy Industrial Plugs, Connectors & Interlocked Sockets, 30-150A

✦ CEEGO Interlock Switch Sockets to Industrial Specification - 110v, 240v 415v

✦ CEEGO Interlock Switch Sockets to Power Station Specification (CEGB), 415v



18 Electric & Trace Heating Systems

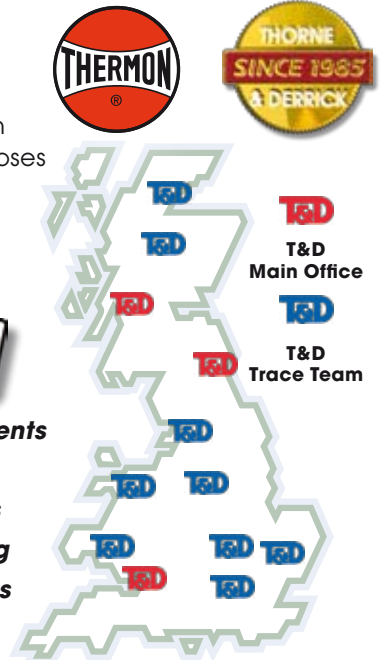
T&D understand the demanding and precise operational requirements associated with process heating applications for pipework, pump-houses, drums, tanks, vessels, skids, hoses and hoppers.

Our customer-care based service, confirms our position as the trusted market leader in providing commercial, industrial and hazardous area electrical heating solutions.

The Best Value Service in the UK



- ★ **SURVEY** - call a T&D engineer to site to discuss and solve your project requirements
- ★ **SPECIFY** - detailed proposals focused to maximise plant or project efficiency
- ★ **DESIGN** - complete heating solutions designed from drawings or on-site surveys
- ★ **SUPPLY** - reliable and most competitive 'one-stop-shop' for all electrical heating
- ★ **INSTALL** - nationwide coverage through our installer network of T&D Trace Teams
- ★ **COMMISSION** - peace of mind tests and checks to ensure client satisfaction



18a Industrial & Hazardous Area Heat Tracing Cables

For process temperature heating and frost protection of pipework and mechanical services in the oil, gas, petrochem, biodiesel, rubber and plastics, pharmaceutical, water and sewage treatment, food and beverage and heavy industries.

Common applications include: oils, chemicals, acids, caustic soda, polymers, glues, waxes, resins, paints and foodstuffs.



18b Commercial Heat Tracing & Leak Detection

- ★ **Frost Protection**
- ★ **Hot Water Distribution**
- ★ **Roof & Gutter Heating**
- ★ **Ramp & Access Way Heating**
- ★ **Water & Oil Leak Detection**



T&D UK are first choice suppliers and sub-contractors to the construction industry with **vendor approved status** from all the major M&E building services contractors. We are very active in the following areas: hospital and healthcare, commercial and retail, sports and leisure, education, defence, data and call centres, power and energy and rail.

18c Specialist Electrical Heating

T&D offer the broadest range of equipment to solve all industrial electrical heating applications - **just try us!**

- ★ Drum heaters up to 205 litre capacity and 300°C temperature
- ★ Refrigeration Freeze Protection - Drainlines & Cold Store Doors
- ★ Immersion heaters, for direct contact heating of process fluids
- ★ Heated hoses, for reliable transfer of liquids and gases
- ★ Constant wattage, series & MI heating cables
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