

INTERTECH

- SUPPLY
- INSTALL
- MODIFY
- REPAIR

Quality, Service, Reliability and Know How
to connect your network

Welcome to INTERTECH

Intertech Engineering designs, supplies and installs cable accessories for power transmission and distribution. Our wide range of products is suitable for applications from 6.6kV to 420kV.

We represent many major overseas suppliers within the region and have developed the skills and knowledge to provide local sales, technical support and training to our customers - both in Australia and New Zealand.

Intertech is based in Victoria with a sales and training office in New South Wales as well as a sales office in Queensland.



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MV Cable Joints and Terminations

Intertech supplies custom-designed kits MV Joints and Terminations based on 3M Electrical products. We can match the specific requirements of the cable and the customer needs.



Kits with 3M products use the well established 3M Cold Shrink Technology. Cold Shrink offers some unique features:

Long Lasting.

The compact design insulators are made from long lasting UV resistant silicone rubber with excellent track resistant and hydrophobic characteristics.



Fast.

3M Cold shrink Joints and Terminations, with integral Hi-K stress control, are supplied expanded on a removable core. To apply, simply position, then unwind the core to shrink down.

Safe.

No heat sources are required. 3M Joints and Terminations can be used in locations where heat sources and open flames cannot be used as well as on total fire ban days.

Complete.

3M Joint and Termination kits supplied by Intertech are complete with instructions and all the materials required to finish the job.

3M Joint and Termination kits are assembled at Intertech's Melbourne factory and next day delivery to most Australian cities is available.

3M Cold Shrink products are fully supported by Intertech.

Supported by 3M's extensive research facilities and our own local Engineers, custom design MV cable joints and terminations are regularly developed and tested to suit your specific needs.

MV Cable Joints and Terminations

For enquiries, call our **HOTLINE:**

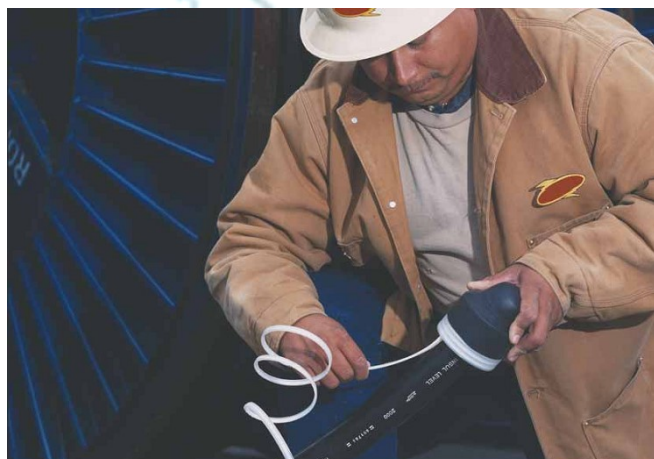
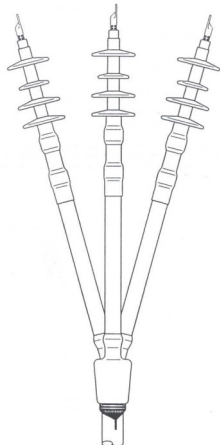
1300 796 792

or Fax: (03) 9773 5666



- **3M** Cable Joints, Terminations and Accessories to 33kV
- **3M** QTIII Cold Shrink. A complete termination in one component!
- **3M** QS2000E Joints — single and three core fully Cold Shrink joints.
- **3M** Termination and Joint kits are custom designed and built to meet your specific requirements
- **3M** Cold Shrink Cable Joints to suit XLPE, EPR to 33kV
- **3M** Resin Pressure Joints to suit XLPE, Paper to 33kV
- **3M** Diagnostics and Detection

Design Advice - On Site Training - 3M Product Training



Cable Clamps and Cleats

Intertech is a major manufacturer and supplier of cable clamps and cleats for all sizes of sub-transmission and distribution power cables.



CABUS Cable Clamps

Best suited for indoor or outdoor applications within the specified size range.

- Marine Grade Alloy Construction
- Fault Rated
- Sizes range from OD 10mm to 200mm+
- Available in various configurations including single and trefoil.
- Option of Stainless Steel fittings
- Epoxy coated if specified

TORGY Clamps

Best suited for EHV applications. Also common in Trench and Tunnel Installations.



- Resin, Glass Fibre and Mineral Composite Construction
- Low Smoke and Flame
- Custom design to suit your application



KOZ Clamps

High Strength glass-reinforced polyamide clamps. Suitable for wide cable diameter ranges.

KOZ®PRODUCTS BV

- Halogen free material
- High Tensile Strength
- UV resistant
- Chemical Resistant

Complete pole kits and special clamps also available!

Prysmian Separable Connectors



PRYSMIAN Elascon Separable Connectors (Elbows) are made in Europe from high grade EPDM.

The Elascon range include shearhead lugs and flexible EPDM bodies to cater for a wider range of conductor sizes. Connectors are available to suit EN 50180/50181 interfaces.



250 Amp - Interface A

- 12 & 24kV
- up to 95mm² standard
- straight and elbow configurations



400 Amp - Interface B

- 12, 24 & 36kV
- up to 240mm² standard
- straight and elbow configurations



630 Amp - Interface C

- 12, 24 & 36kV
- up to 630mm² standard
- tee configurations

CABUS MV & HV Accessories

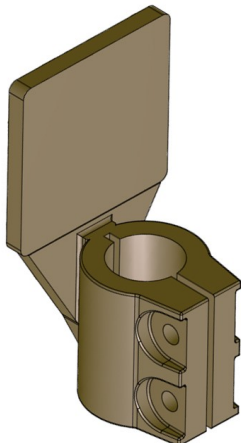
CABUS Porcelain Cable Terminations are used by many Australian companies and Utilities. These Terminations are used in switchyard applications where the mechanical strength of the termination is important.



CABUS Porcelain Terminations:

- 11kV
- 22kV
- 33kV
- Connectors to suit your requirements
- Fixing options
- Paper-Lead Cables
- XLPE Cables
- EPR Cables

CABUS Medium Voltage Accessories include:



- Palms
- FGA Glands
- Wiping Glands
- Clamps
- Special Fitting Designs

CABUS MV & HV Accessories

The **CABUS** brand of cable accessories is manufactured in Australia by Intertech.

Just a few of the products available as part of the CABUS range are;

Submarine Cable Joints to 33kV

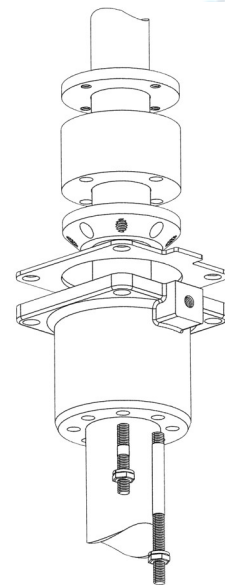
- Joints have high mechanical strength to prevent failures
- Tested through years of service in Australian waters

FGA Cable Glands

- Available for most sizes of MV cables
- Suitable for either XLPE or EPR cables
- Ideal for cable End Boxes
- Standard sealing gland for MV terminations

Cable Clamps

- A large range of fault rated clamps available
- See page 3 for more details



Used extensively in Australia, **CABUS** cable accessories are proven through many years in service. Products are designed to meet your specific cable size, type and voltage.

PFISTERER Cable Systems

Pluggable contact systems to 420kV for use in Transformers and Gas Insulated Switchgear.

PFISTERER
THE POWER CONNECTION

CONNEX

Dry Plug and Bushing System for MV and HV 11kV to 420kV and up to 4000A.

CONNEX is the original dry-type, pluggable connection system.

Touch safe.
Space saving.
Disconnect for test.
Used in Transformers & Switchgear.

Components Include:

- 'Female' Socket
- 'Male' Cable Termination



The CONNEX system is widely used throughout the world!
Features include:

- High Fault Ratings
- Easy to Install
- Suitable for all Polymeric and EPR Cables
- Ideal for Transformer or GIS applications, including rebuilds
- Suitable for outdoor and offshore use.
- Extensive accessory range for testing and extending circuits.



PFISTERER Connectors and Earthing

PFISTERER SICON connectors use shear-head technology for simple installation without the need for special tools.

PFISTERER
THE POWER CONNECTION

SICON Connectors have numerous advantages over their competitors:

- Special tools not required
- Each connector will accommodate a range of conductor sizes.
- Shearing occurs at the surface of the connector body, not at a fixed shear point.



PFISTERER SICON Connectors are available as a jointing component in most 3M joint kits or are available separately for use with most other joints.



PFISTERER Earthing and Safety components include;

- 3 Pole earthing devices, available with various connection and clamp types
- Earthing Clamps
- Operating and Earthing Poles
- Tap Connectors
- Voltage Detection systems
- Phase Comparators
- Special Traction Motor connectors

PFISTERER IXOSIL Joints & Terminations

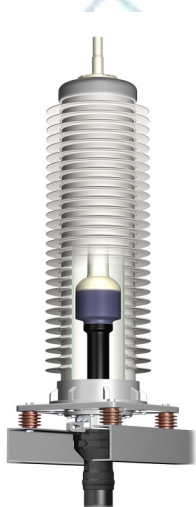
The IXOSIL range of HV and EHV Joints & Terminations

PFISTERER
THE POWER CONNECTION

Pfisterer's range of joints and terminations feature one-piece, pre-moulded silicone insulating parts which are each individually tested at the factory to provide guaranteed performance upon installation.

Termination types:

- Silicon Shed, Self-Supporting Terminations (Type ESS) to 420kV
- Porcelain Shed Self-Supporting Terminations (Type ESP) to 420kV
- Silicon Flexible Outdoor Terminations (Type ESF & EST) to 145kV
- Fluid Filled, Transformer and GIS Terminations to 170kV



Joint Types:

Straight Joints (Type DO) or Cross-Bonding Joints (Type XL or XK) available for voltages 66 - 420kV.

With options of:

- Compound filled, hard PP outer casing (Type G)
- Basic heatshrink outer casing, no compound (Type S or R)
- Continuous metal sheath (Type M)
- Optical Fibre Breakouts

PFISTERER Railway Equipment

**Tensorex C+ Spring
Tensioning System (TRC+)**

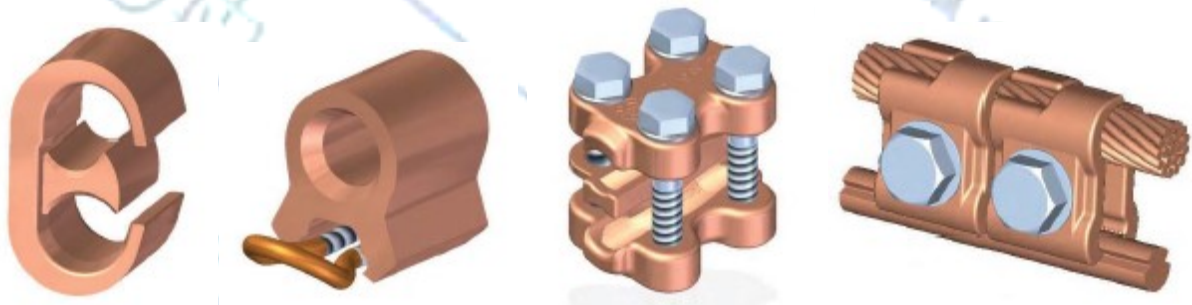
PFISTERER
THE POWER CONNECTION



The TRC+ unit is designed to apply constant force to your contact or messenger Wires through a simple, yet effective design.

Some key advantages of the TRC+ system are:

- Pull force up to 1200kg
- Compact dimensions & light weight
- Low visual impact & low rates of vandalism
- Fast installation & virtually maintenance free
- Perfectly suited to difficult locations such as tunnels, portals and elevated railways.



Pfisterer's range of Railway products also include:

- Bolted and Compression type connectors for 10 - 300mm².
- Both hot & cold forged dropper clamps for 25 - 300mm² catenary cables and 80 - 161mm² contact wires.
- Railway composite insulators.
- Full range of suspension equipment such as cantilevers and steady arms.
- Railway specific safety and earthing equipment.

ECS Oil and Gas Transition Joints

Joints and Plant for Fluid Filled Cable Systems



Transition joints allow the connection of fluid filled cables to XLPE cables. This enables extensions, modifications and repairs to fluid filled circuits without the added cost or hassle of removing or replacing existing fluid filled circuits.

ECS Transition joints are available from 33kV to 170kV in the following configurations;

- Oil to XLPE
- Gas to XLPE
- 3 Core to Single Core
- Single Core Straight



Other available oil equipment includes:

- Oil pressure tanks
- Oil gauge cabinets
- Oil line insulators
- Full hydraulic design and/or modification

Oil De-gasification units from small static units to large portable solutions are also available.

SFPOC Optical Groundwire

SFPOC is a leading supplier of OPGW worldwide.

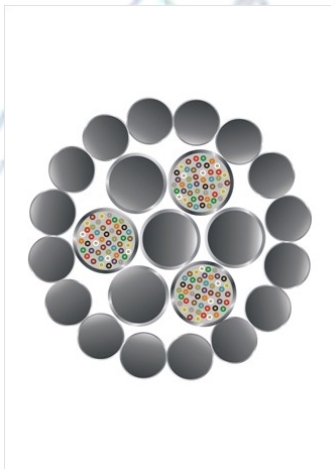
(Products formerly manufactured by Phillips-Fitel)

Intertech is the distributor of SFPOC OPGW Australia wide.



CENTRUM OPGW

- Small overall diameter
- Up to 60 fibres
- Fault level to 27 kA²s



LUX OPGW

- Composite Design for high fibre count.
- Multiple hermetically sealed loose tube design.
- High fault rating



DUAL OPGW

- Inner stainless steel tube encased in an outer aluminum tube
- Up to 60 fibres
- Ideal for highly corrosive environments without the use of anti-corrosive grease.

HIGHVOLT HV to EHV Test Equipment

Medium Voltage to Supertension Solutions for Testing both on-site and in laboratories.

**HIGH
VOLT**



High Voltage Test and Measurement Systems

AC Resonant Test Systems

Impulse Voltage and Current Test Systems

Voltage and Current Measurement

PD Measurement

On Site Test Systems and Diagnostics

HV Test Fields

Technical Service

Calibration

HIGHVOLT was founded in 1904 and has a strong worldwide supply record.

HIGHVOLT products are designed and constructed in Germany with local expertise and sales provided by Intertech.



PFT Leak Detection

Leak Detection system for Fluid Filled Cables

PFT (Perfluorodimethylcyclobutane) is used to detect leaks in fluid filled cables as low as a litre per day.



- PFT is dosed into the cable fluid
- Sensors are deployed along the cable route
- Air borne PFT particles are detected
- Leak locations can be pin-pointed within a few metres
- Significant savings are made by minimising costly excavations

1. Dose



2. Detect



3. Excavate and Repair



Pfisterer Product Training and Certification

Intertech is proud to be the only Pfisterer partner company, globally, which can offer full Pfisterer product training and factory certification.

Training is based in our facility in Ingleburn, NSW, where trainees can undertake product training relevant to their level of experience.

Training modules currently offered are:

Module 1: MV CONNEX System - Sizes 1-3S, up to 52kV

Module 2: CONNEX System Size 4, up to 72.5kV

Module 3: CONNEX System Size 5S, up to 145kV

Module 4: CONNEX System Size 6/6S, up to 170/245kV

Module 5: ESS / ESP Outdoor Terminations up to 72.5kV

Module 6: ESS / ESP Outdoor Terminations up to 145kV

Module 7: ESF Flexible Terminations up to 72.5kV

Module 8: ESF / EST Flexible Terminations up to 145kV

Module 9: MSA HV Cable Joints up to 72.5kV

Module 10: MSA HV Cable Joints up to 145kV

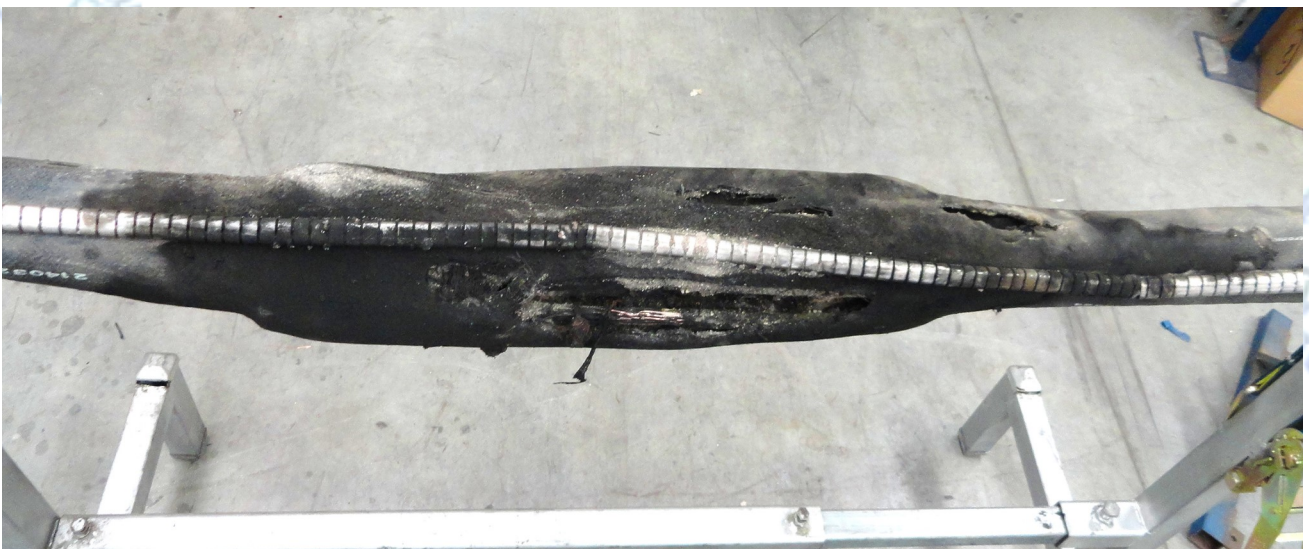
Each course includes instruction, identification, demonstration and cable preparation. Trainees who successfully complete the course gain a full Pfisterer factory certification valid for 3 years.

Training is run on demand, but group size and availability is limited, so please contact us for a quote.

Failure Investigations

Intertech has over 100 years of extensive knowledge and experience regarding Power Cables, Power Cable Accessories and their installation.

In addition to this, we have global resources to draw on for further experience and understanding in many specific fields such as fluid filled cables.



Intertech has previously provided:

- Failure mode analysis for many different cable accessories, irrespective of supplier.
- Analysis of installation quality.
- Analysis of XLPE cables for water treeing.
- Oil system design checks.

In all cases, evidence and professional reports are compiled by qualified engineers. Call us today to make our knowledge, your advantage!



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