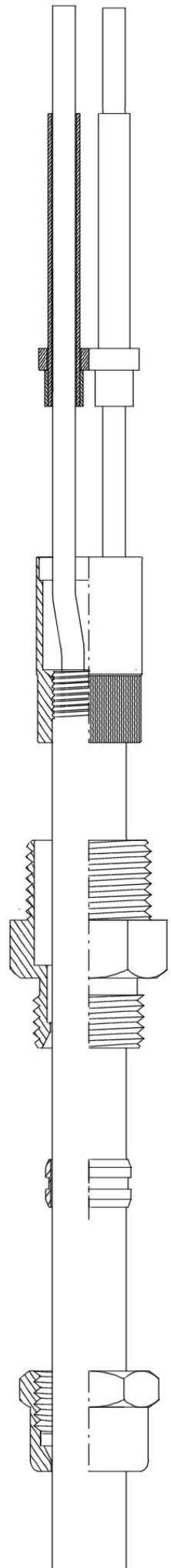
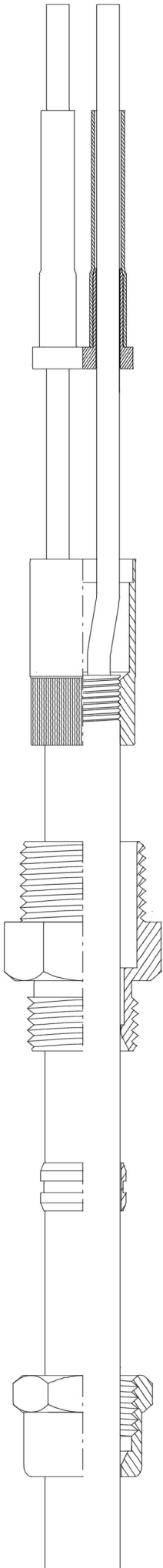


**CABLE
TERMINATING
PROCEDURE**



**Technical Data Sheet 1 - A5
Mar 2009**



AEI Cables Ltd
Birtley
Co Durham
DH3 2RA

PROCEDURE

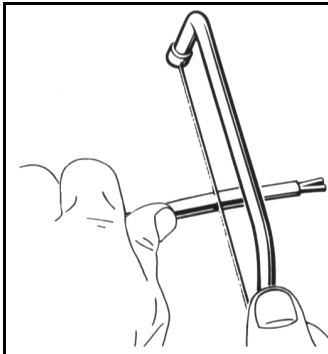
This leaflet shows the procedure for fitting a complete termination on an AEI Mineral Insulated Cable.

A complete termination normally consists of a gland and a seal assembly and, where plastic covered cable is used, a gland shroud.

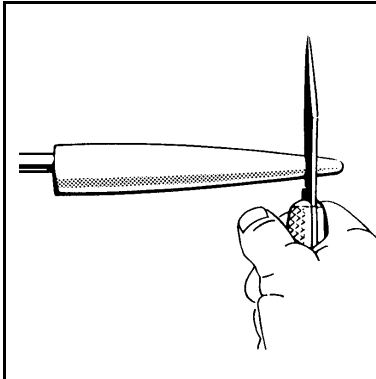
The seal assembly has a temperature range of -80°C to 105°C . Other seals are available for up to 150°C

The seal is available with or without an earth tail attachment. The earth tail seal is offered with conductors up to 50 mm^2

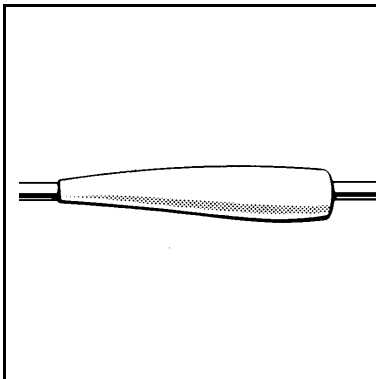
The gland thread entry sizes available are 20, 25, 32 and 40 mm. The thread size is dependant on the diameter of the cable size selected and whether plain or earth tail seals are used. These sizes are shown in our MI Brochure and on Technical Data Sheet TD B113.



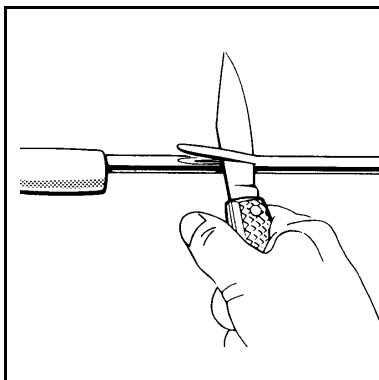
Saw the cable to produce a square end



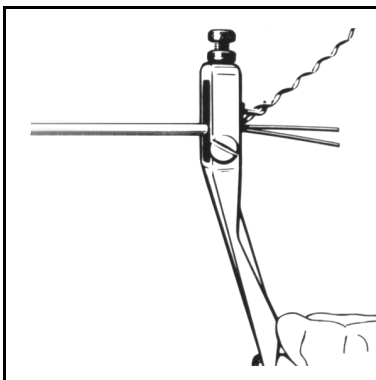
Hold the shroud against the cable and cut the taper as shown.



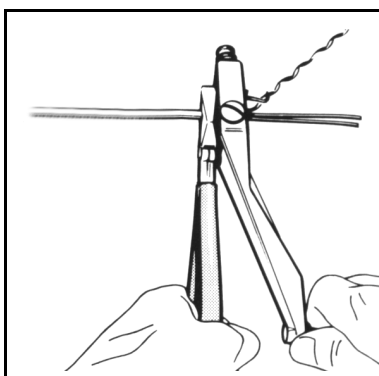
Fit the gland shroud



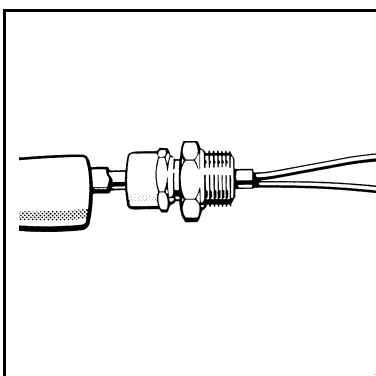
Strip the plastic outer covering for the required length



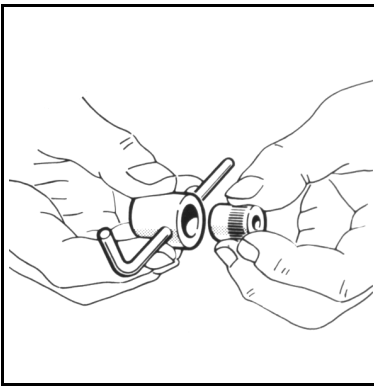
Strip the outer sheath using a ZSU stripper (shown) or side cutters



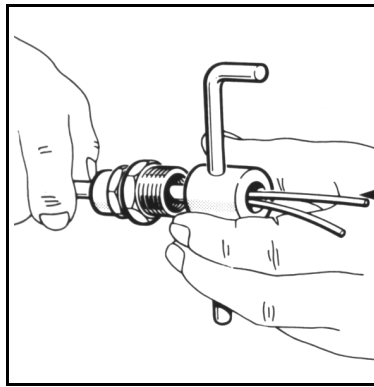
When the required length has been stripped, grip the sheath tightly with pliers to stop the stripping tool and finish the strip.



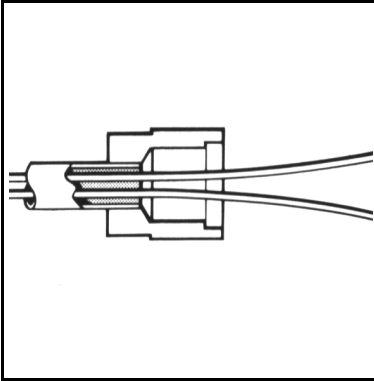
Fit the complete gland as shown but do **NOT** tighten the back nut at this stage.



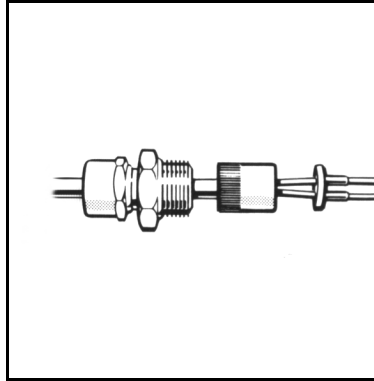
For 20 & 25 size pots an Easi-Pot tool may be used to simplify assembly onto the cable



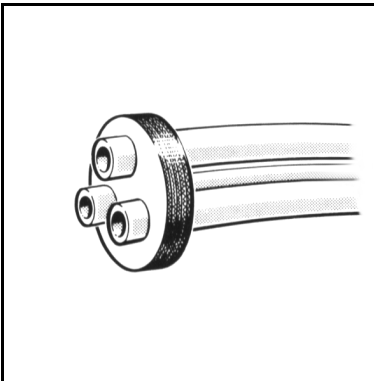
Alternatively use the expendable type crimper. This is available in 20. 25. 32 and 40 mm termination sizes



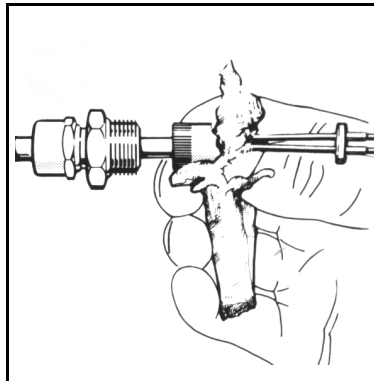
The pot should be screwed onto the cable until it protrudes approx. 1 mm into the pot. Earth tail pots may need screwing further to correctly position the earth wire



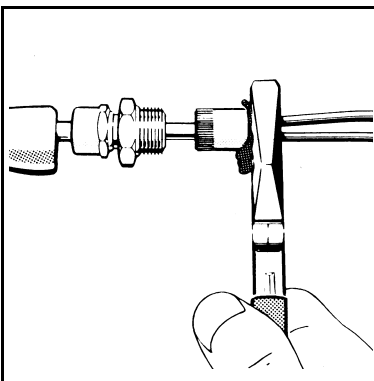
If stub caps are supplied, position the stub cap on the conductors



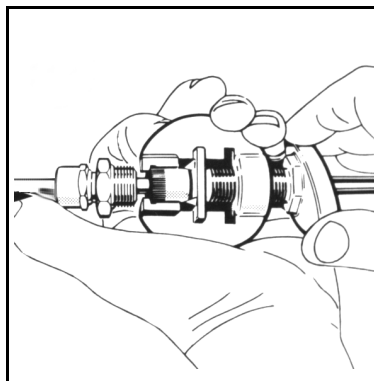
With discs, position the disc and sleeve assembly on the conductors. With large cross section conductors it may be necessary to bend the conductor to enable the disc to slide easily into the



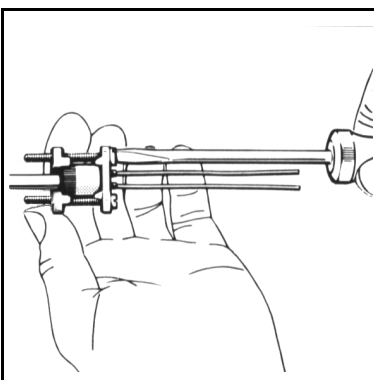
Fill the pot mouth with compound. Push the compound into the pot from one side only until the pot is over-full



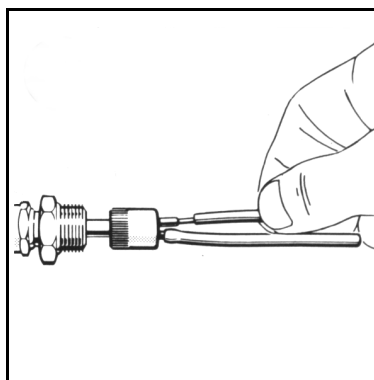
Push the disc or stub cap firmly into the mouth of the pot using suitable pliers



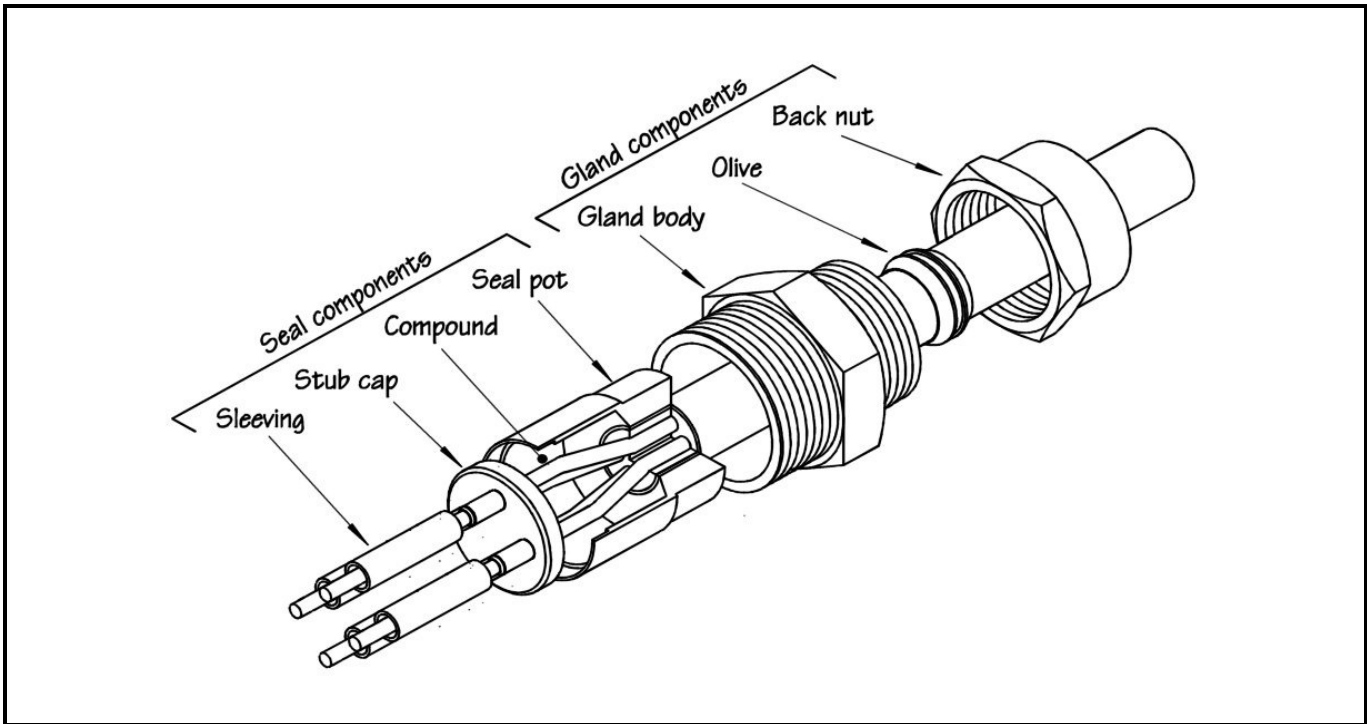
Remove excess compound and crimp the disc/stub cap using the hand crimper (available for 20 & 25 mm sizes). Ensure the pot is not loosened when releasing the crimping force.



Alternatively use the expendable type crimper. This is available in 20. 25. 32 and 40 mm termination sizes. Ensure the pot is not loosened when releasing the crimping force.



For seals using stub caps, cut the sleeving to length and push over the stub. The other end of the cable should now be terminated in the same way



SPECIFICATION AND STANDARDS

Seals

The MI Cable termination shown in this leaflet meets the requirements of BSEN 60702:Part 2 (Mineral insulated cable – Part 2 Terminations) and is therefore fully compatible with mineral insulated cables from other suppliers which are manufactured to this standard

The working temperature range is -80°C to 105°C

Glands

The AEI MI cable glands shown in this leaflet conform to the ATEX Directive and are certified for use in hazardous areas (flameproof, type of protection 'd') in Zones I and II, atmospheres IIa, IIb and IIc.

They are intended for use within the ambient temperature range of -20°C to $+120^{\circ}\text{C}$

The certificate number is SIRA03ATEX1193X

To ensure compliance with the certification, minimum tightening torques for the back nuts are recommended and these are shown in the table below.

These torques values should also be used to ensure satisfactory earth continuity between the gland and the cable.

Torques

Gland entry thread size	Tightening torque
mm	Nm (min)
20	20
25	30
32	40
40	50

HEALTH AND SAFETY

When terminating mineral insulated cable care should be taken to prevent sharp metal edges from cutting the skin, or powdered insulation causing irritation by entering the eyes. Gloves and protective spectacles can be used to prevent this.

