

**3M** QT III COLDSHRINK TERMINATION  
FOR OUTDOOR APPLICATION

94-EP612-2 to 94-EP642-2

FOR SINGLE CORE POLYMERIC INSULATED COPPER  
TAPE SCREENED, ALUMINIUM WIRE ARMoured CABLE,  
AND/OR LEAD SHEATHED CABLE, WITH OR WITHOUT  
A COPPER TAPE SCREEN, 19/33kV

**3M** U.K. PLC. © 2003  
3M CENTRE, CAIN ROAD, BRACKNELL  
BERKS. RG12 8HT, ENGLAND

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LATEST REQUIREMENT.

ERH

06.11.06

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RELEASED.

ADP

04.11.03

ISSUE

DESCRIPTION / ECO

BY

DATE

ALL STATEMENTS, TECHNICAL INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE  
BASED ON TESTS WE BELIEVE TO BE RELIABLE. HOWEVER, SINCE THE CONDITIONS OF USE  
AND THE APPLICATION ARE BEYOND OUR CONTROL THE PURCHASER IS RESPONSIBLE FOR THE  
PERFORMANCE OF THE SPLICES AND TERMINATIONS MADE IN CONNECTION WITH THE USE OF  
DATA OR SUGGESTIONS STATED HEREIN.

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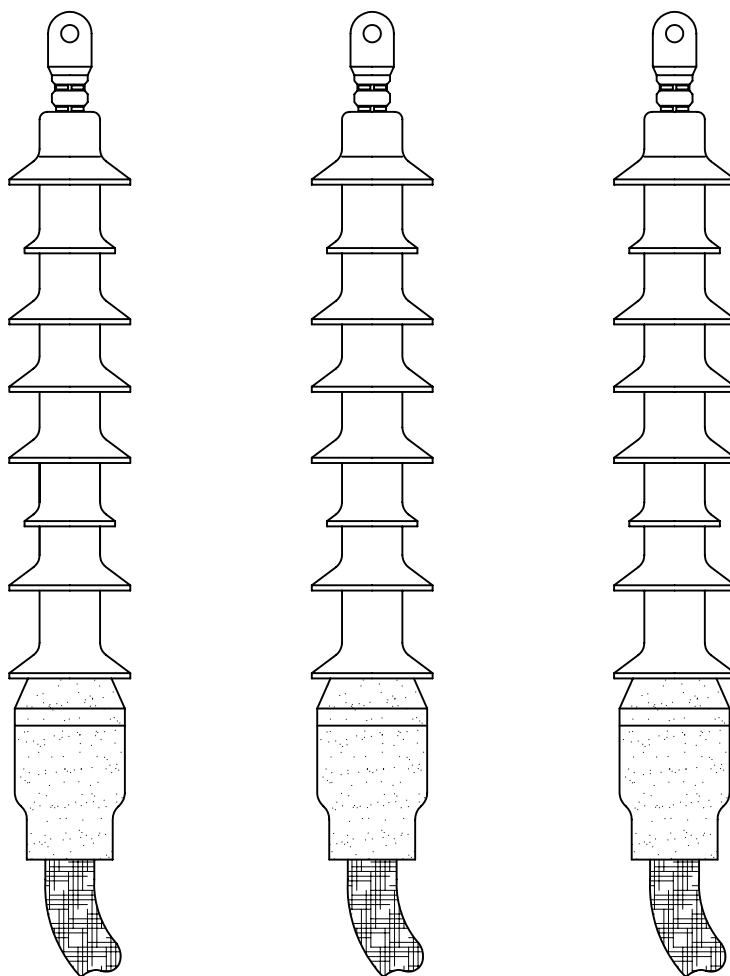
COLDSHRINK TERM. FOR OUTDOORS  
94-EP612-2 TO 94-EP642-2  
FOR SINGLE CORE POLYMERIC AL.  
WIRE ARMoured CABLE AND/OR  
LEAD SHEATHED CABLE

**3M** ELECTRICAL PRODUCTS

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SHEET  
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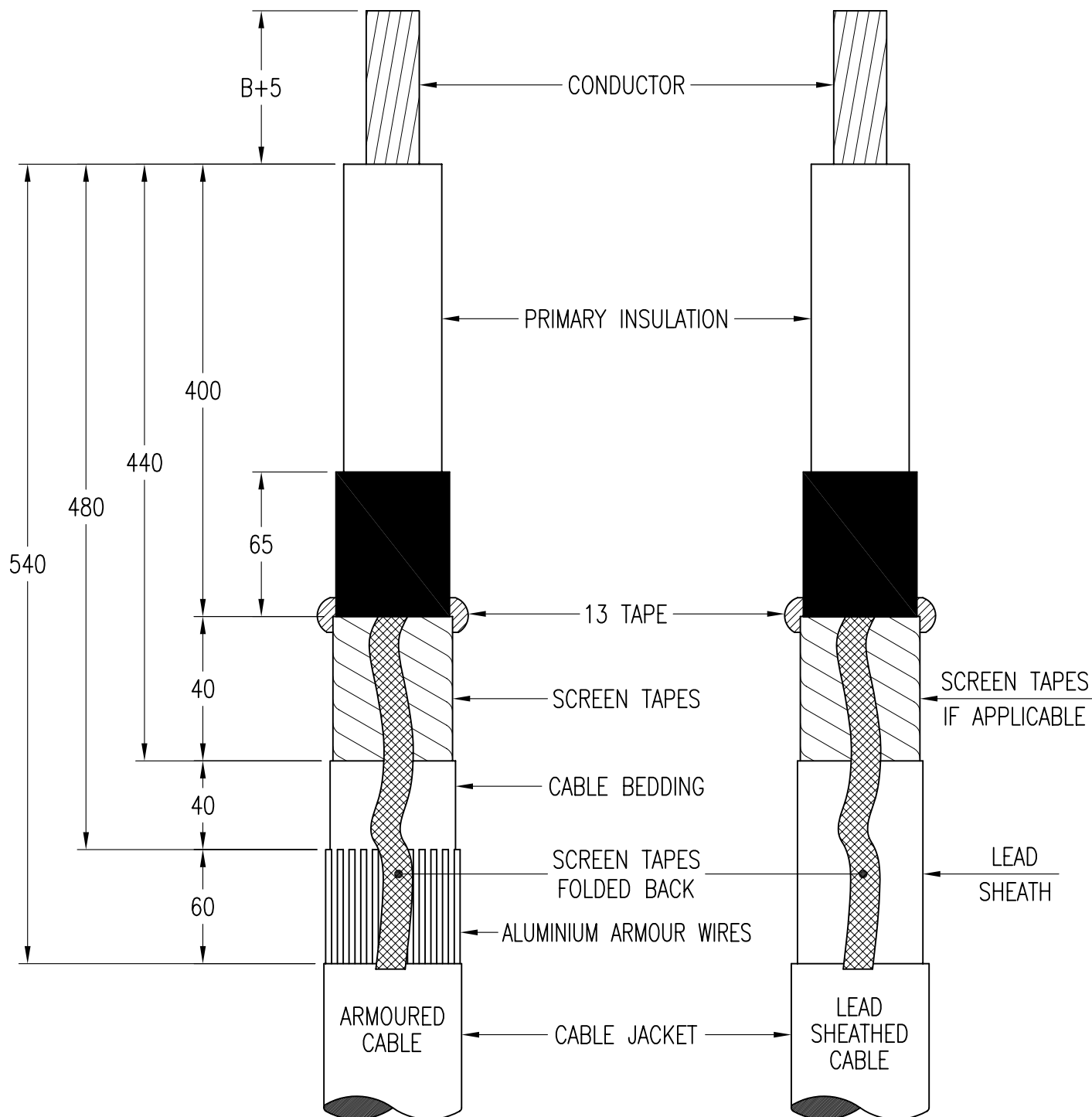


KIT REF.	94-EP612-2	94-EP622-2	94-EP632-2	94-EP642-2
PRODUCT No.	R-8S	S-8S	T-8S	U-8S
CROSS SECTION (mm. <sup>2</sup> )	50-120	70-240	185-400	400-630
DIAMETER OVER PRIMARY INSULATION D (mm.)	18.3-32.8	21.1-38.9	26.7-45.7	38.9-58.9
DIAMETER OVER CABLE JACKET K (mm.)	26.3-40.7	28.4-47.5	35.3-61.0	46.8-71.1

**IMPORTANT NOTICE**

**CROSS SECTIONAL AREA IS STATED AS A GUIDE ONLY. PLEASE SELECT THE KIT BASED UPON THE PRIMARY INSULATION DIAMETER OF THE CABLE, ALSO TAKING INTO ACCOUNT THE CHOSEN CONNECTOR OR LUG DIMENSIONS.**

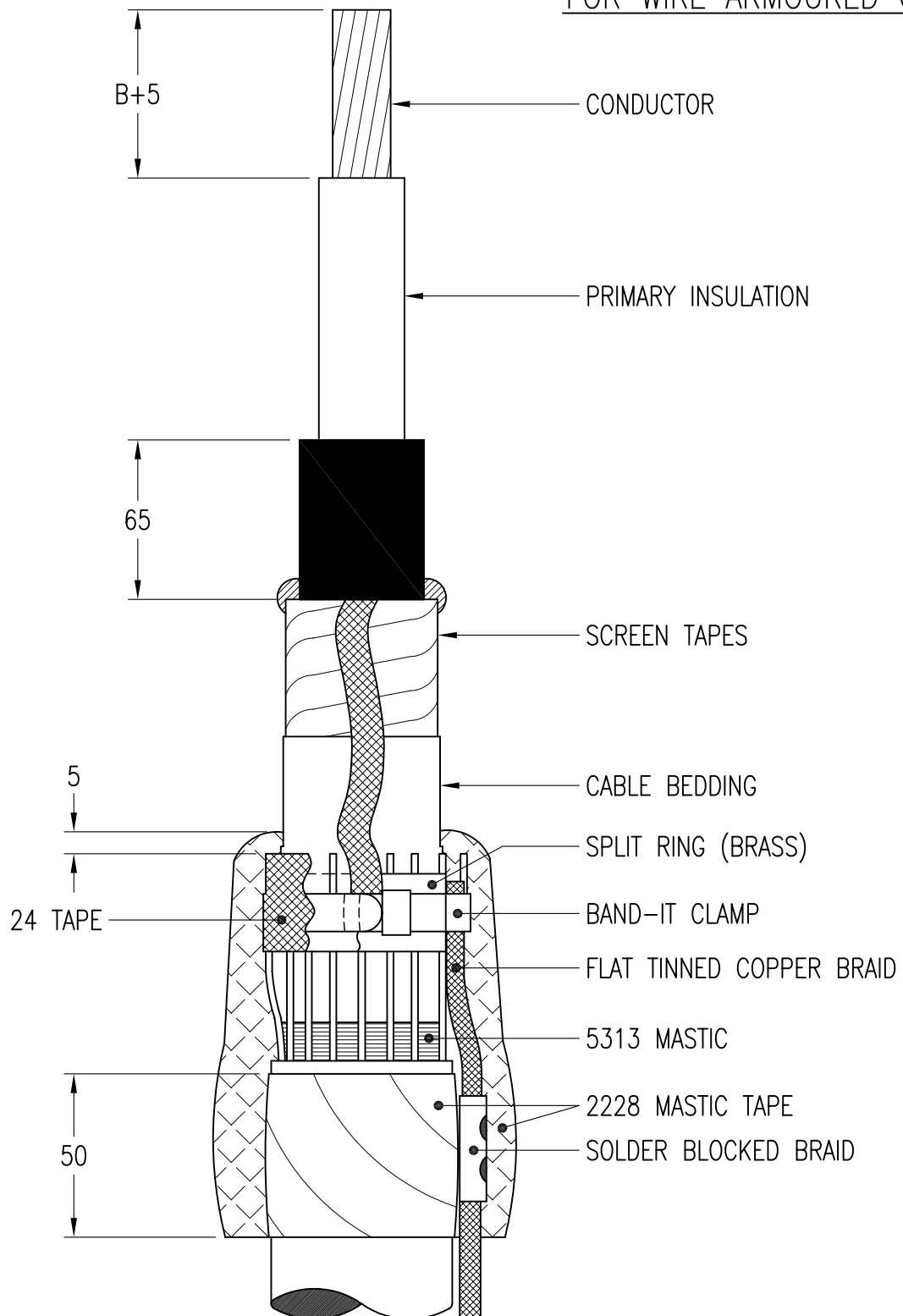
FIG.1



- 1.1 THOROUGHLY CLEAN CABLE JACKET FOR A DISTANCE OF 800mm FROM THE END OF THE CABLE, TO REMOVE ANY GRAPHITE COATING.
- 1.2 REMOVE THE CABLE JACKET AS ABOVE, ( $B$  = INTERNAL DEPTH OF LUG BARREL).
- 1.3 PREPARE CABLE AS PER DIMENSIONS ABOVE.
- 1.4 UNWIND THE COPPER TAPE (IF APPLICABLE) LEAVING 40mm IN FRONT OF THE CABLE BEDDING/ LEAD SHEATH, AND ENSURE A SMOOTH PROFILE.
- 1.5 BIND END OF COPPER TAPE SCREEN WITH 2 HALF LAPPED LAYERS OF HIGHLY STRETCHED No.13 TAPE.
- 1.6 REMOVE THE SEMI-CON OUTER CABLE SCREEN, LEAVING 65mm IN FRONT OF THE COPPER TAPE SCREEN.
- 1.7 REMOVE THE PRIMARY INSULATION FOR  $B+5$ mm, ( $B$  = DEPTH OF LUG BARREL)

FIG.2

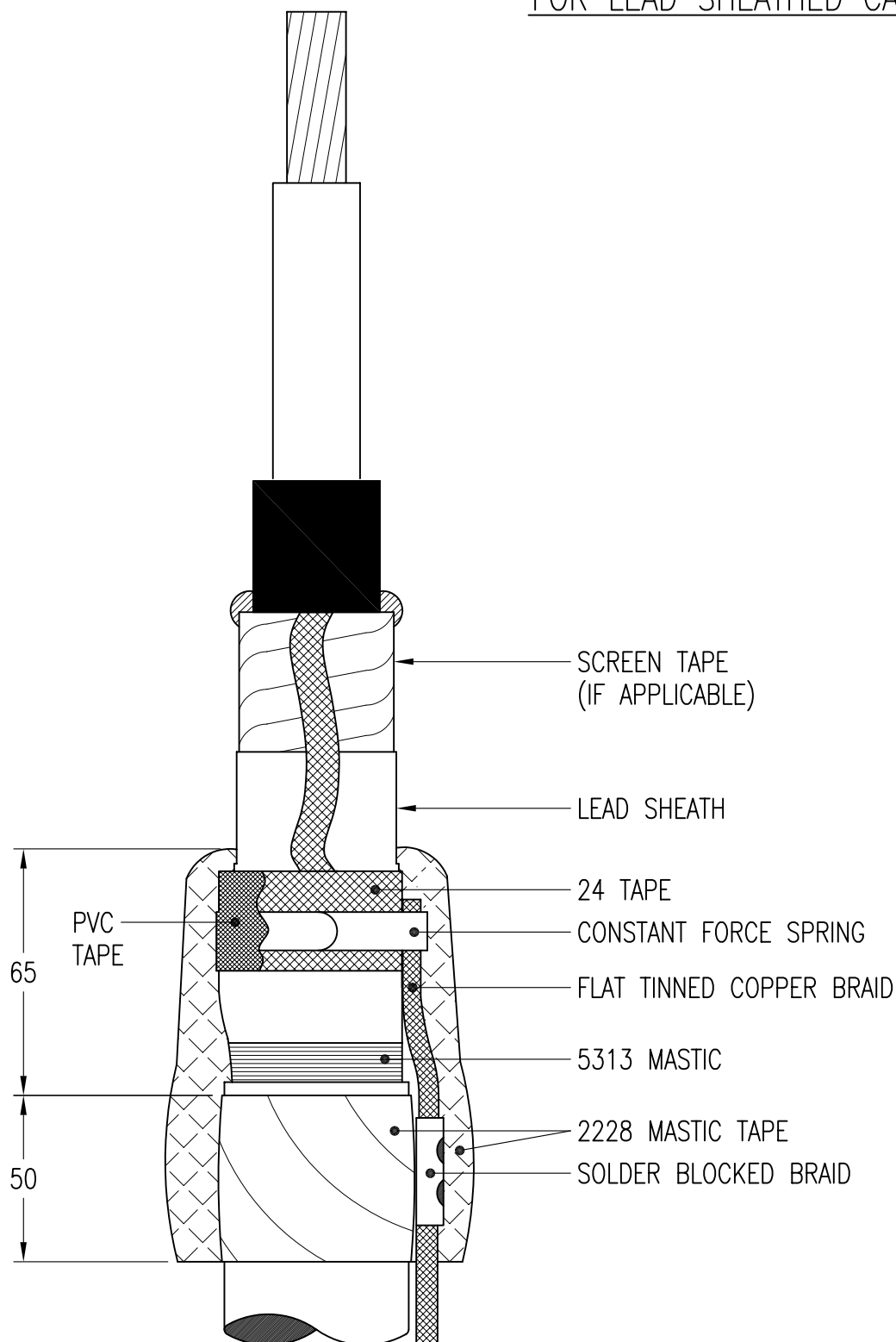
FOR WIRE ARMoured CABLES



- 2.1 APPLY A LAYER OF 2228 MASTIC TAPE ON TO CABLE JACKET AT TERMINATION OF CABLE JACKET.
- 2.2 LIFT ALUMINIUM WIRES UP AND INSTALL A LAYER OF 5313 MASTIC BELOW ARMOURS.
- 2.3 INSTALL SPLIT RING UNDER WIRE ARMOURS.
- 2.4 OVERTAPE ARMOURS AND SUPPORT RINGS WITH 2 LAYERS OF No. 24 TAPE.
- 2.5 LAY COPPER TAPE SCREEN ON TO No. 24 TAPE, OVER SUPPORT RING AND CUT TO LENGTH.
- 2.6 LAY SOLDER BLOCKED BRAID UP ON TO ARMOURS AND CONNECT BRAID TO WIRE ARMOURS AND SCREEN TAPE USING BAND-IT CLAMP. POSITION SOLDER BLOCK ON 2228 TAPE AND TRIM ANY EXTRA BRAID IN LINE WITH END OF ARMOURS.
- 2.7 OVERTAPE ARMOUR AREA WITH ANOTHER HALF LAPPED LAYER OF 2228 TAPE. OVERLAP ON TO CABLE BEDDING BY 5mm.

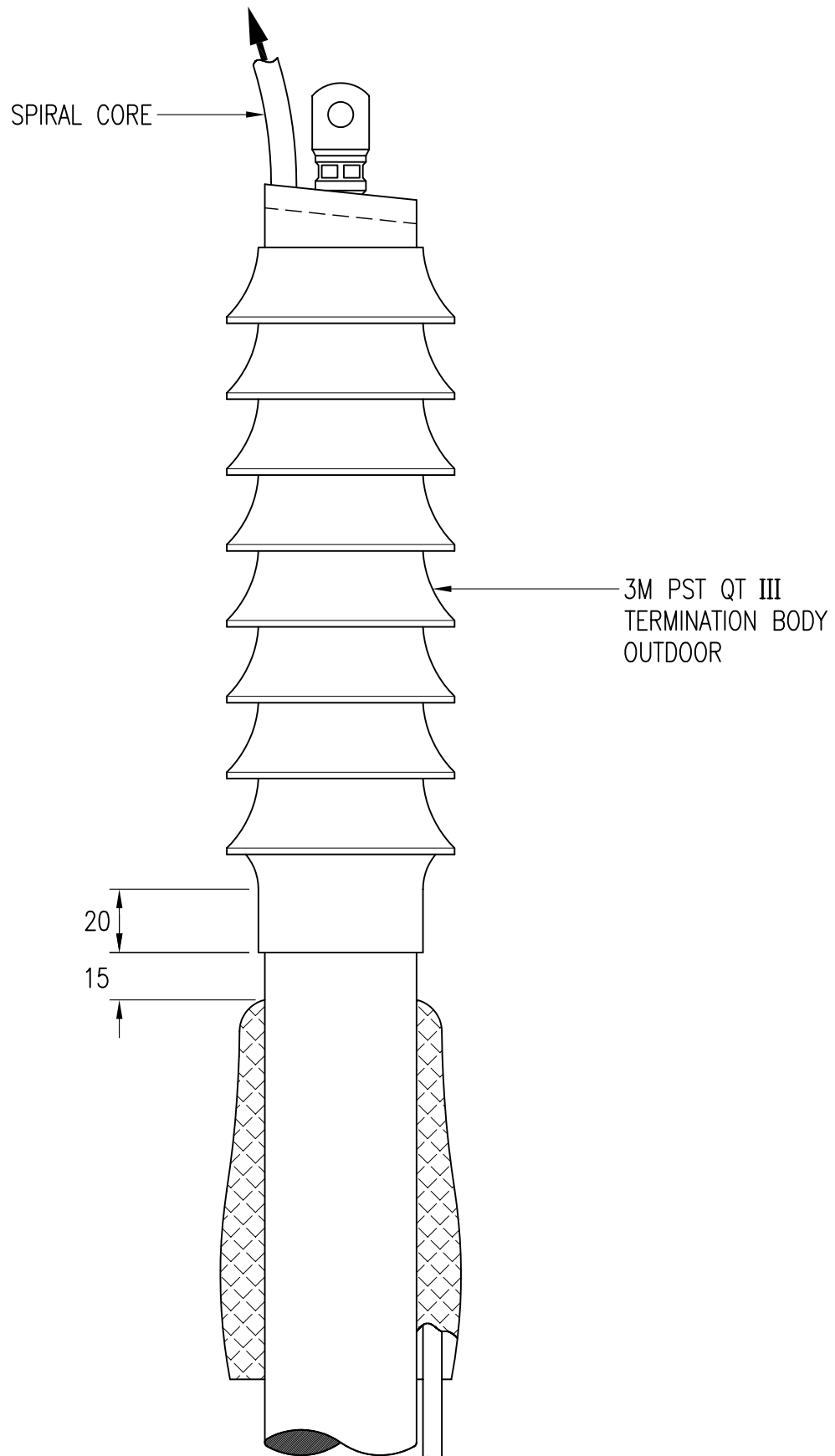
FIG.3

FOR LEAD SHEATHED CABLES



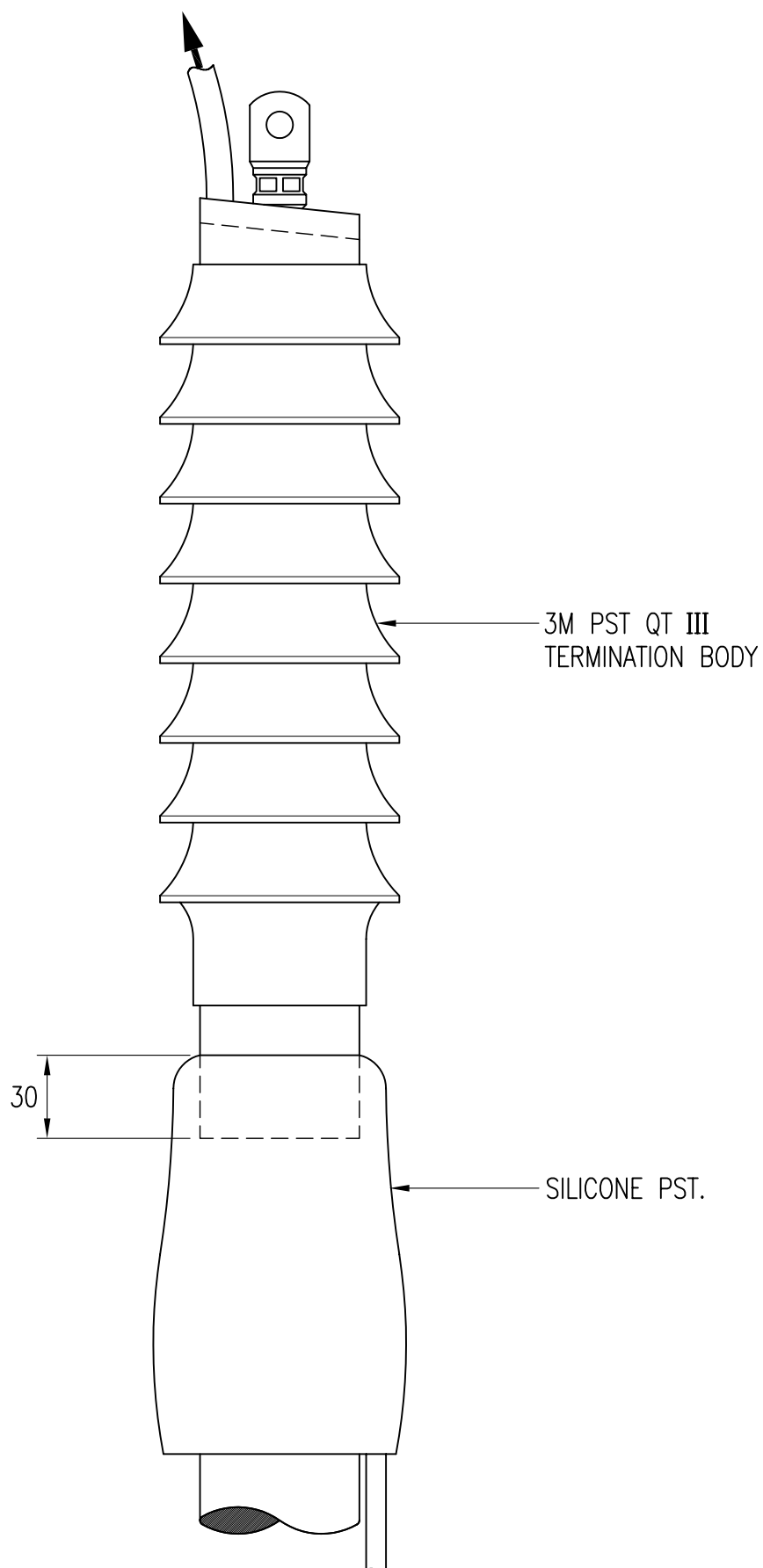
- 3.1 APPLY A LAYER OF 2228 MASTIC TAPE ON TO CABLE JACKET AT TERMINATION OF CABLE JACKET.
- 3.2 INSTALL A LAYER OF 5313 MASTIC TAPE ON TO THE LEAD SHEATH, AT THE END OF THE CABLE JACKET.
- 3.3 5mm BEYOND THE 5313 MASTIC, WRAP 3 LAYERS OF 24 TAPE ON TO THE LEAD SHEATH.
- 3.4 ATTACH THE COPPER SCREEN TAPE (IF APPLICABLE) AND THE FLAT TINNED COPPER BRAID BY MEANS OF A CONSTANT FORCE SPRING APPLIED DIRECT ON THE BEDDING OF SCOTCH 24 TAPE.
- 3.5 TIGHTEN SPRING AND OVERTAPE WITH HIGHLY STRETCHED PVC TAPE, APPLIED IN THE SAME DIRECTION AS THE SPRING.
- 3.6 OVERTAPE THE AREA WITH ANOTHER HALF LAPPED LAYER OF 2228 TAPE, COMMENCING 50mm OVER THE EXISTING 2228 TAPE, ON THE CABLE JACKET FOR A FURTHER 65mm AS PER FIG.3.

FIG.4



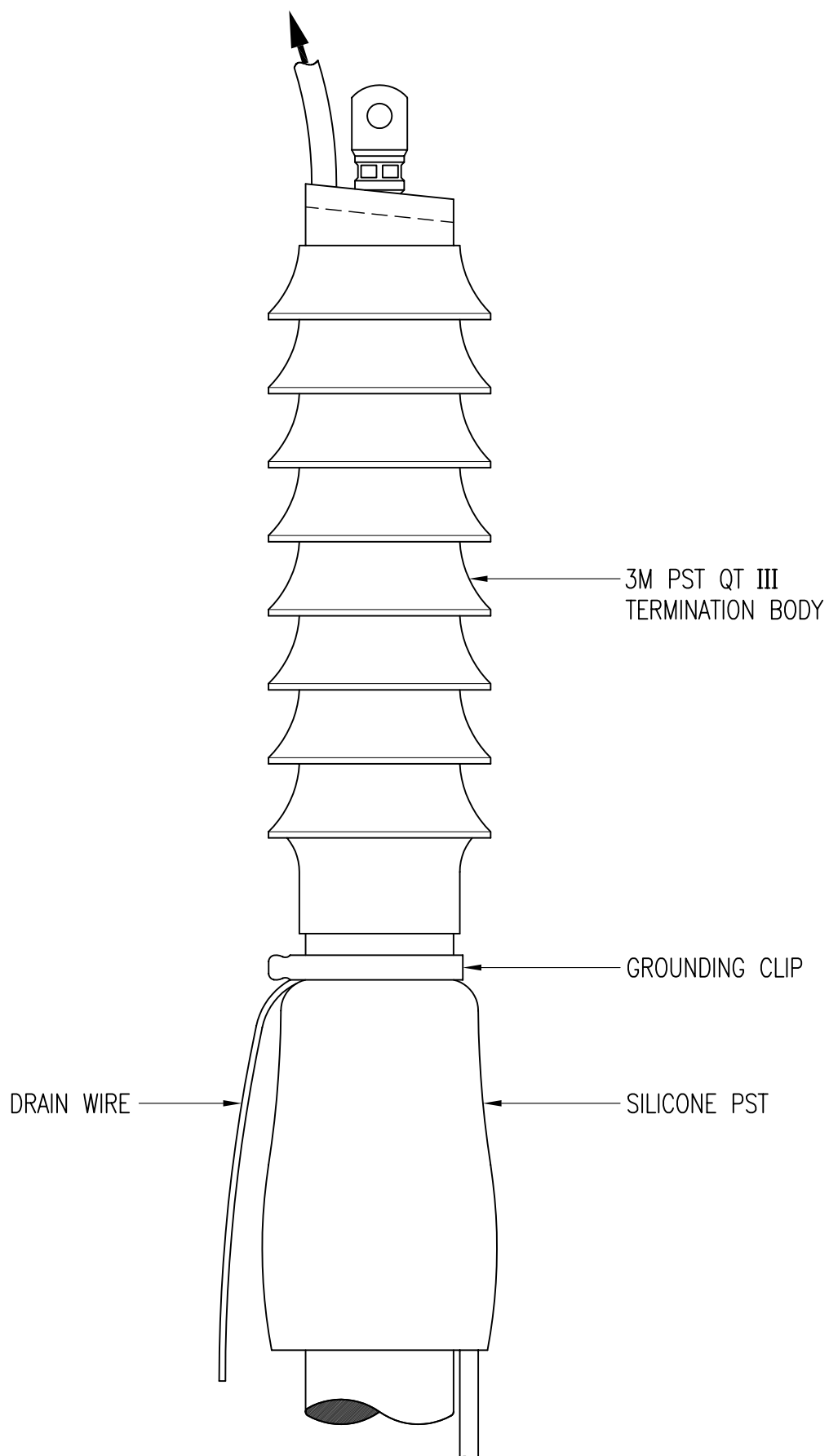
- 4.1 IF THE PALM OF THE LUG WILL FIT THROUGH THE QT III TERMINATION, INSTALL THE LUG NOW, CLEAN AND DEGREASE, AND CONTINUE THE INSTALLATION, LEAVING OUT INSTRUCTION 4.4, IF NOT, FOLLOW ALL INSTALLATION INSTRUCTIONS.
- 4.2 REMOVE RED SHIPPING CORE FROM THE QT III TERMINATION.
- 4.3 SLIDE THE TERMINATION OVER THE CABLE END.
- 4.4 INSTALL THE LUG, CLEAN AND DEGREASE.
- 4.5 INSTALL QT III AT A POINT 20mm ON TO THE CABLE BEDDING.

FIG.5



- 5.1 INSTALL SILICONE PST, COMMENCE SHRINKING 30mm ON TO THE QT III BODY.
- 5.2 CAREFULLY TRIM OFF ANY EXCESS PST FROM THE BOTTOM OF THE TERMINATION IF REQUIRED. ENSURE THE PST COVERS THE 2228 TAPE.

FIG.6



6.1 INSTALL GROUNDING CLIP AND CONNECT DRAIN WIRE.