

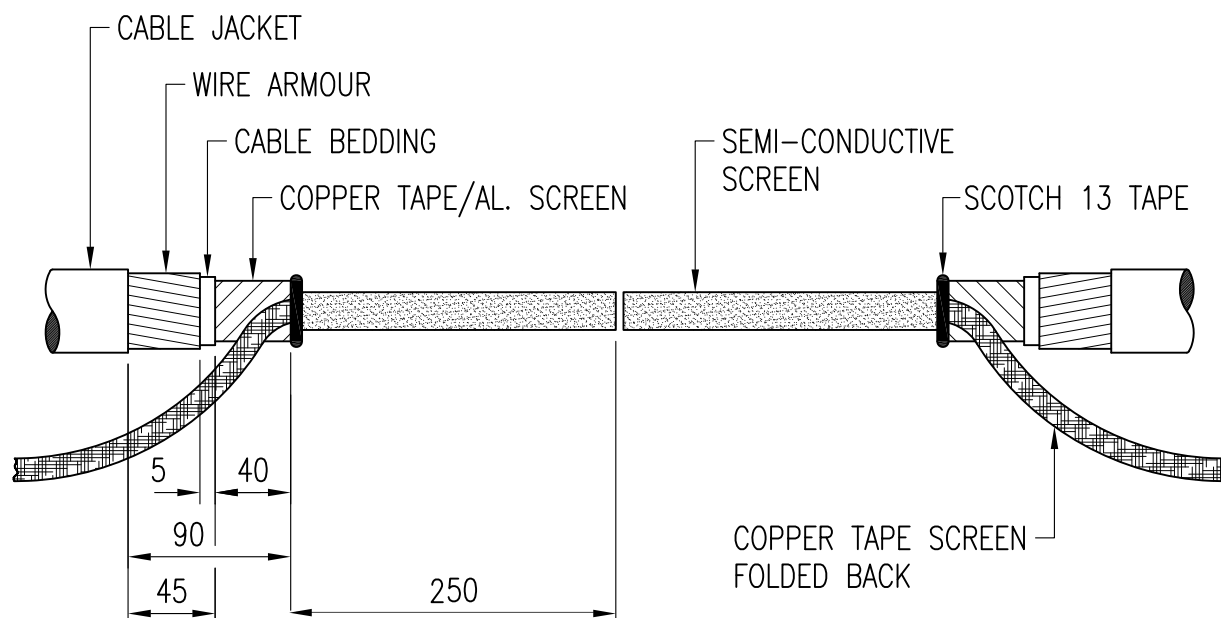
3M QS 2000 INLINE JOINT
94-AP63X-1/C
WITH COLD SHRINK REJACKETING FOR
POLYMERIC SINGLE CORE CABLES WITH
TAPE SCREEN AND ARMOUR ACC. TO
VDE 0276-620 (IEC 60502) UP TO 36kV

SELECTION CHART

KIT No.	DIAMETER OVER CABLE SHEATH MAX. (mm.)	DIAMETER OVER INSULATION [E] (mm.)	CROSS SECTION (mm. ²)	DIAMETER OVER CONNECTOR (mm.)	CONNECTOR LENGTH MAX. (mm.)
94-AP635-1/C	56	28.4 – 42.0	120 – 240	23.3 – 42.0	170
94-AP636-1/C	56	28.4 – 42.0	185 – 300	23.3 – 42.0	170

3M UNITED KINGDOM PLC © 2009 3M CENTRE, CAIN ROAD, BRACKNELL BERKS. RG12 8HT, ENGLAND		3	ADJUSTMENT TO FIGURE 1	RS	07.09.22
		2	LATEST REQUIREMENT.	ERH	16.11.10
		1	RELEASED.	ERH	24.06.09
		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 JOINTS AND TERMINATIONS MADE IN CONNECTION WITH THE USE OF DATA OR SUGGESTIONS STATED HEREIN.		3M QS 2000 INLINE JOINT 94-AP63X-1/C 36kV WITH COLD SHRINK REJACKETING FOR POLYMERIC SINGLE CORE CABLES WITH TAPE SCREEN AND ARMOUR TO VDE 0276-620 (IEC 60502) INSTALLATION INSTRUCTIONS			
Drawn : E.REES-HAYWARD	Des.Eng: A.RUSSELL				
Cad File: XE-0091-3416-6	Checked:				
3M ELECTRICAL PRODUCTS		AA-BBCC-7088-0	XE-0091-3416-6	SHEET 1 OF 5	A4

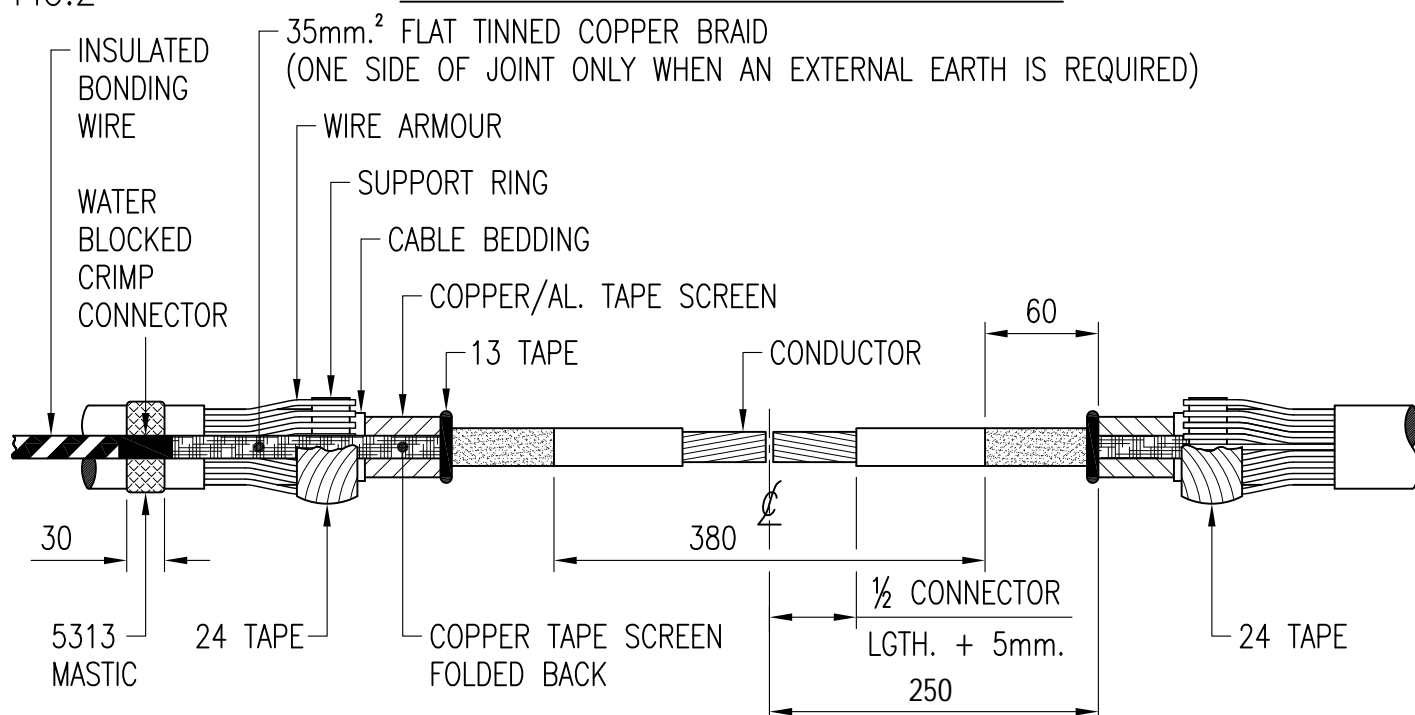
FIG.1



- 1.1 UNWRAP COPPER/AL. TAPE SCREEN TO 90mm DIMENSION, BEND SCREENS BACK ENSURING A SMOOTH PROFILE.
- 1.2 BIND ENDS OF TAPE SCREEN WITH 2 HALF LAPPED LAYERS OF HIGHLY STRETCHED No.13 TAPE.

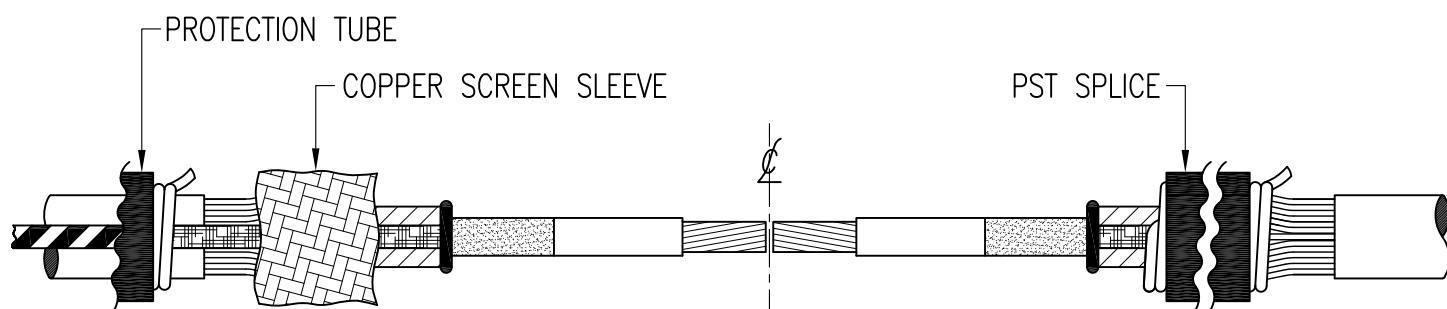
FIG.2

CABLE WITH EXTRUDED SEMI-CONDUCTIVE SCREEN



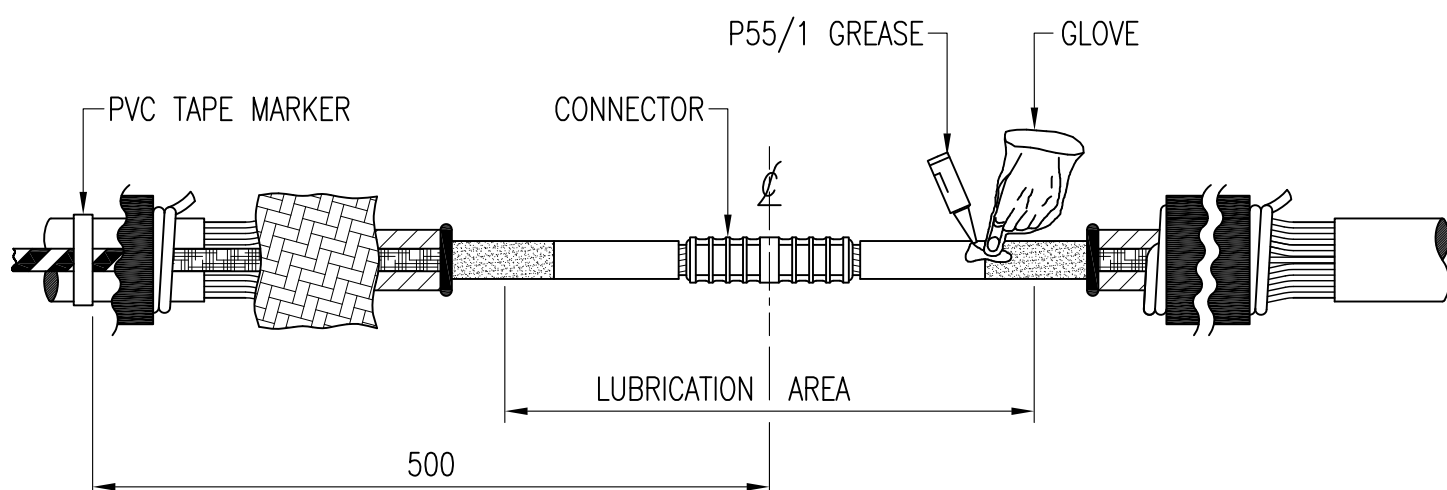
- 2.1 PREPARE CABLES TO DIMENSIONS ABOVE, PLEASE NOTE THAT DIMENSIONS ARE TO THE CENTRELINE OF THE JOINT, AND FOR BLOCKED CONNECTORS THE BLOCK MUST TAKEN INTO ACCOUNT.
- 2.2 FIT SUPPORT RING UNDERNEATH ARMOURS, AND FOLD ARMOURS BACK ON TO RING.
- 2.3 OVERTAPE ARMOURS AND RING WITH 2 LAYERS OF No. 24 TAPE.
- 2.4 LAY COPPER/AL. TAPE SCREEN ON TO 24 TAPE, OVER SUPPORT RING AND CUT TO LENGTH.
- 2.5 IF EXTERNAL EARTH REQUIRED, THEN ON ONE SIDE OF THE JOINT ALSO LAY 35mm.² FLAT TINNED COPPER BRAID OVER THE SUPPORT RING, AND OVERTAPE WITH 2 LAYERS OF 24 TAPE.
- 2.6 IF EXTERNAL EARTH NOT REQUIRED, THEN APPLY TWO LAYERS OF 24 TAPE ON BOTH SIDES OF THE JOINT, TO SECURE COPPER/AL. TAPE SCREEN.
- 2.7 IF EXTERNAL EARTH REQUIRED, THEN INSTALL ONE LAYER OF 5313 MASTIC, BELOW THE CRIMP CONNECTOR, AND ANOTHER LAYER OVER THE CRIMP CONNECTOR.

FIG.3



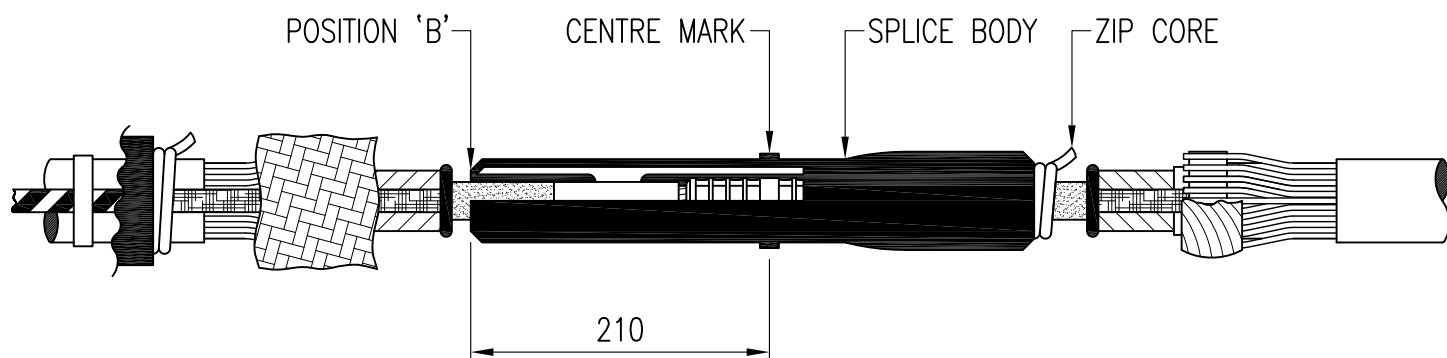
3.1 POSITION THE PROTECTION TUBE, COPPER SCREEN SLEEVE AND PST SPLICE ON TO THE CABLE ENDS, AS SHOWN.

FIG.4



- 4.1 INSTALL MECHANICAL/CRIMP CONNECTOR TO MANUFACTURER'S INSTRUCTIONS. REMOVE THE EXCESS GREASE, SMOOTH AND CLEAN THE CONNECTOR.
- 4.2 APPLY A LIBERAL AMOUNT OF P55/1 GREASE OVER THE END OF THE SEMI-CONDUCTIVE LAYER, ON TO THE EXPOSED CABLE INSULATION AND CONNECTOR USING THE PLASTIC GLOVE PROVIDED.
- 4.3 PLACE A PVC-TAPE MARKER ON THE CABLE JACKET AT A DISTANCE OF 500mm FROM THE CONNECTOR CENTRE.

FIG.5



- 5.1 SLIDE THE PST SPLICE OVER THE CONNECTOR UP TO POSITION 'B'.
- 5.2 USING POSITION 'B' AS A STARTING POINT, SHRINK THE JOINT BODY ON TO THE CORE BY UNWINDING THE SPIRAL. ONCE THE JOINT BODY HAS BEEN SHRUNK PAST ITS CENTRE MARK, AND BEFORE IT HAS BEEN SHRUNK FULLY ACROSS THE CONNECTOR, ENSURE THAT THE BODY IS IN POSITION USING THE PVC TAPE AND CENTRE MARKS. IF NOT CORRECTLY POSITIONED, MAKE CORRECTION BY DISPLACEMENT.

** PLEASE NOTE THE SYMMETRICAL POSITION OF THE JOINT BODY IS CRITICAL **

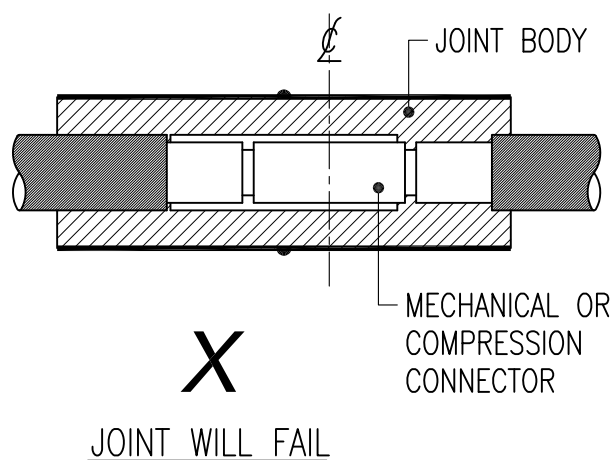
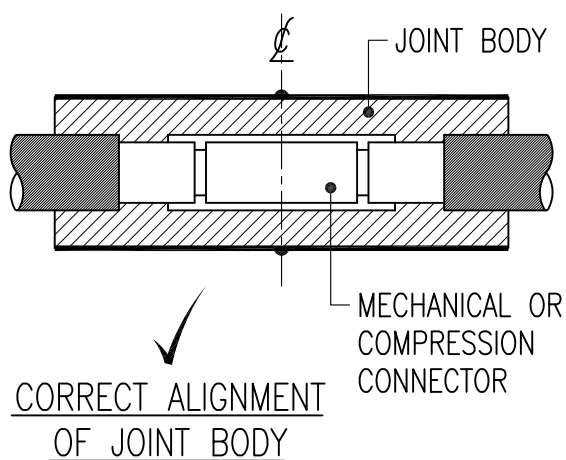
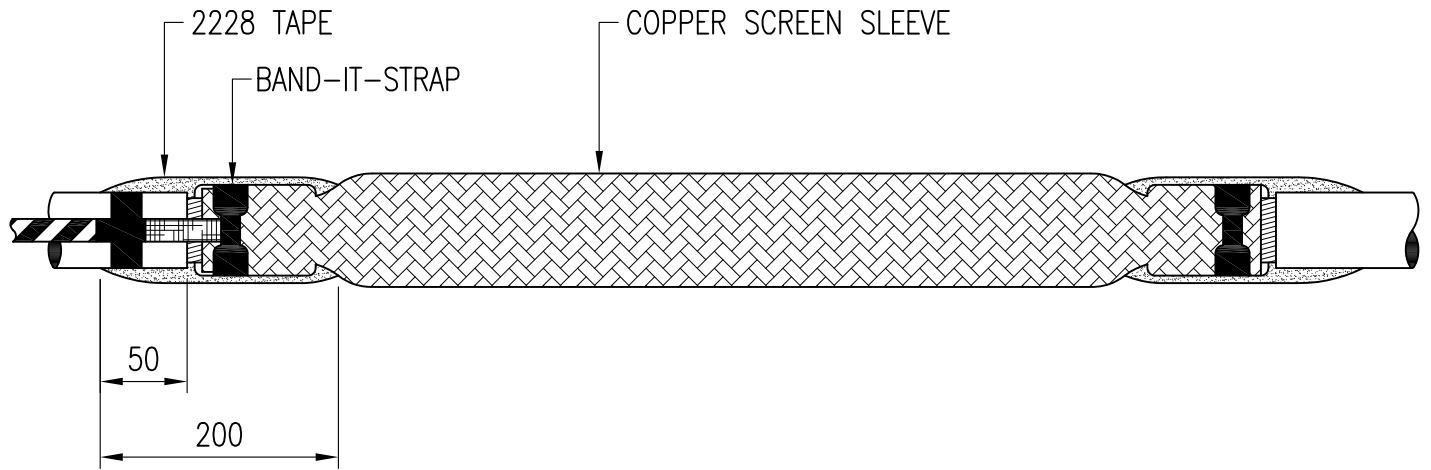
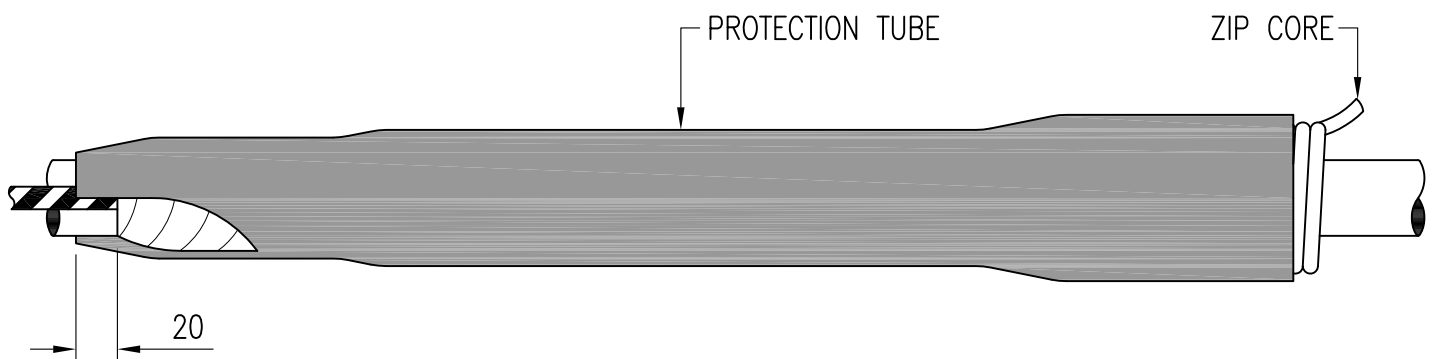


FIG.6



- 6.1 SLIDE THE COPPER SCREEN SLEEVE OVER THE JOINT AND FIX IT BY MEANS OF A BAND-IT STRAP OVER THE 24 TAPE ON THE SUPPORT RING.
- 6.2 COMMENCING 50mm ON TO THE CABLE SHEATH ON EITHER SIDE OF THE JOINT, APPLY 2 HALF LAPPED LAYERS OF 2228 TAPE UP ON TO THE COPPER STOCKING AND BACK AGAIN.

FIG.7



- 7.1 SLIDE THE PROTECTION TUBE OVER THE CONNECTION AND START TO SHRINK BY PULLING OUT AND UNWINDING THE ZIP CORE IN A COUNTER CLOCKWISE DIRECTION. START TO SHRINK 20mm IN FRONT OF THE SEALING.