

SCOTCHCAST MINES AND QUARRIES/
HAZARDOUS AREA JOINT

3M QUICK SPLICE 1000

11 Kv INLINE COLDSHRINK JOINT
FOR POLYMERIC 3 CORE CABLE
WITH COPPER TAPE SCREEN
AND SWA/DWA 70 TO 400mm²
92-AV612-3S6 TO 92-AV642-3S8
(COMPRESSION CONNECTORS)

KIT No.	DIAMETER OVER CABLE JACKET MAX(mm)	DIAMETER OVER PRIMARY INSULATION [E] (mm)	CROSS SECTION (mm ²) FOR 11kV	DIAMETER OVER CONNECTOR (mm)	CONNECTOR LENGTH MAX (mm)
92-AV612-3S6	85	17.7 - 26.0	70 - 185	14.2 - 26.0	135
92-AV622-3S7	85	22.3 - 33.2	150 - 240	18.0 - 33.2	145
92-AV642-3S8	95	28.4 - 42.0	300 - 400	23.3 - 42.0	220

FOR CROSS SECTION 25mm² TO 50mm² PLEASE USE KIT
REF:- 92-AV612-3S6 WITH BUILD UP KIT REF:- 92-PG610-1

© 3M U.K. PLC. 1999 TECHNICAL CENTRE. EASTHAMPSTEAD Rd, BRACKNELL, BERKS. RG12 1JE. ENGLAND	3	LATEST REQUIREMENT.	ERH	10.10.99
	2	ECO 1155	JWP	23.06.99
	1	RELEASED	ADP	26.11.98
	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.

DES.ENG. : S.KING

DRAWN : A.PARKER 26.11.98

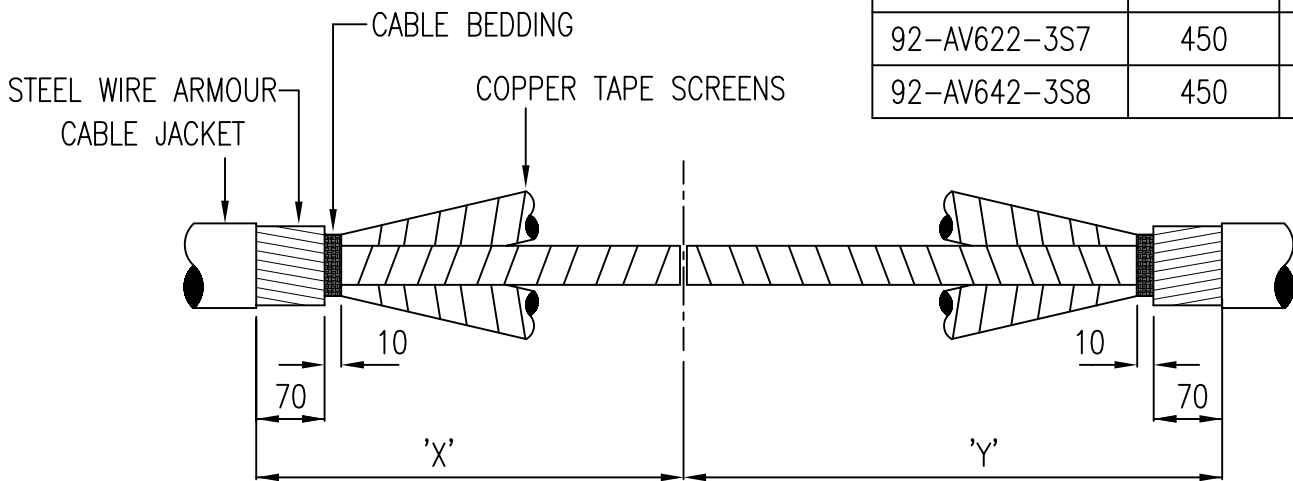
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INSTALLATION INSTRUCTIONS

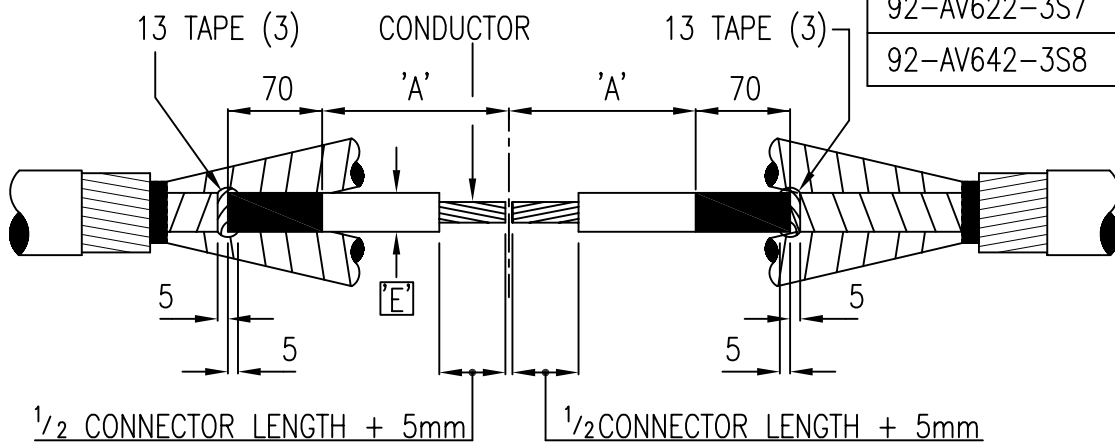
KIT No.	DIM 'X'	DIM 'Y'
92-AV612-3S6	450	610
92-AV622-3S7	450	610
92-AV642-3S8	450	640



- 1.1 PREPARE CABLES AS PER FIG.1 ABOVE, AND ROUGHEN OUTER SHEATH FOR 50mm.
 NOTE: FOR DWA REMOVE ALL ARMOURS UPTO THE SAME POINT.

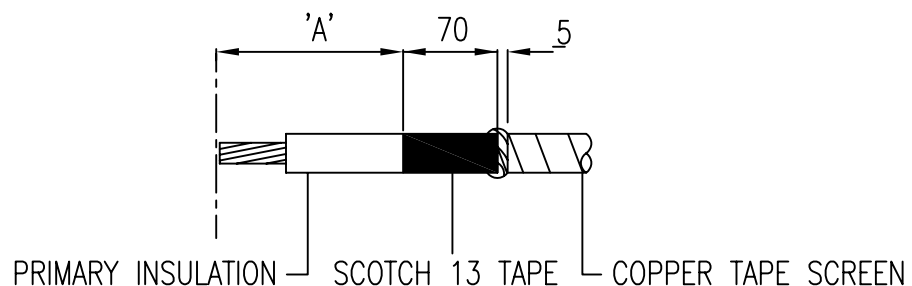
FIG.1

KIT No.	A (mm)
92-AV612-3S6	110
92-AV622-3S7	120
92-AV642-3S8	160



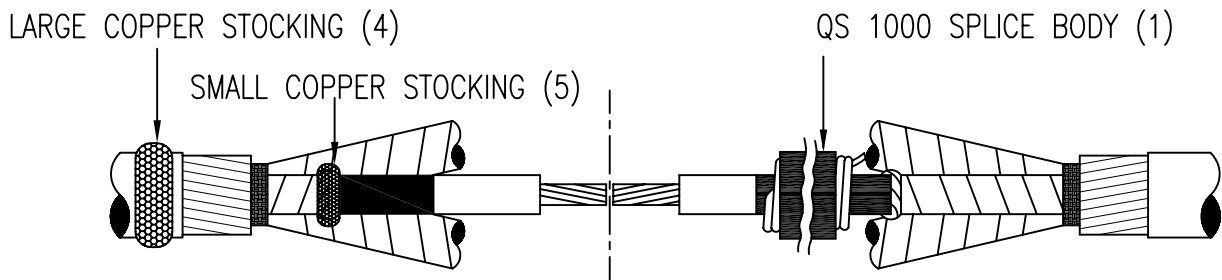
- 2.1 SET CORES AND ALLOW FOR A CROSS IF REQUIRED.
 2.2 PREPARE CABLE AS PER DIMENSIONS SHOWN.
 2.3 FIX THE COPPER TAPE SCREEN WITH HIGHLY STRETCHED BINDER OF SCOTCH 13 TAPE AS SHOWN.

FIG.2



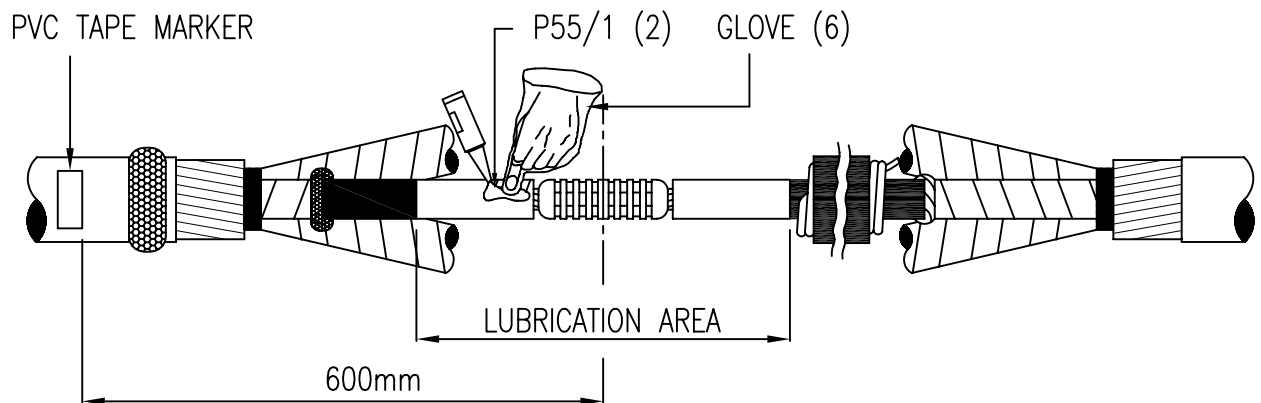
- 2.1 WHERE THE CABLE HAS A CLOTH CARBON TAPE SEMI-CONDUCTING SCREEN, PREPARE THE CORE AS FOLLOWS;-
 2.2 REMOVE THE CLOTH CARBON TAPE BACK TO THE COPPER TAPE SCREEN CUT.
 2.3 RE-INSTATE THE SEMI-CONDUCTING SCREEN USING 2 HALF LAPPED LAYERS OF SCOTCH 13 TAPE, STARTING 70mm FROM THE COPPER TAPE SCREEN UP ONTO THE COPPER TAPE SCREEN AND BACK AGAIN.

FIG.2b



- 3.1 PARK LARGE COPPER STOCKING ON ONE SIDE OF JOINT.
- 3.2 WORKING ON ONE PHASE AT A TIME COMPLETE THE FOLLOWING.
- 3.3 PARK THE QS 1000 SLICE BODY.
- 3.4 PARK SMALL INDIVIDUAL STOCKING ON THE CORE.

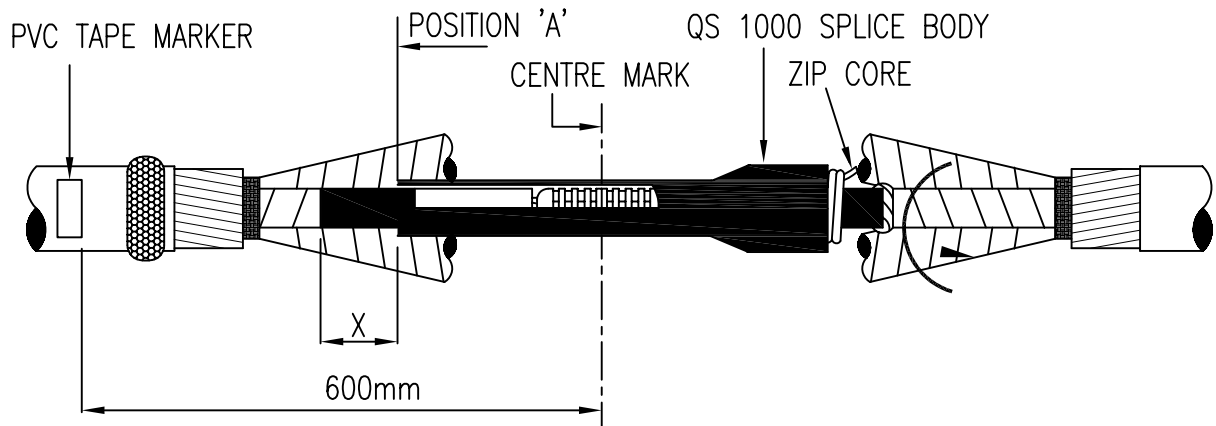
FIG.3



- 4.1 CONNECT CORES USING APPROPRIATE COMPRESSION CONNECTOR.
- 4.2 REMOVE ANY ROUGH EDGES FROM THE CONNECTOR AND CLEAN.
- 4.3 APPLY A LIBERAL AMOUNT OF P55/1 GREASE OVER THE CONNECTOR, THE PRIMARY INSULATION AND UP ONTO THE EXPOSED SEMI-CONDUCTING SCREEN. WORK FROM THE CONNECTOR TOWARD THE SCREEN ON BOTH SIDES.
- 4.4 PLACE A PVC TAPE MARKER ON THE CABLE SHEATH AT A DISTANCE OF 600mm FROM CONNECTOR CENTRE.

FIG.4

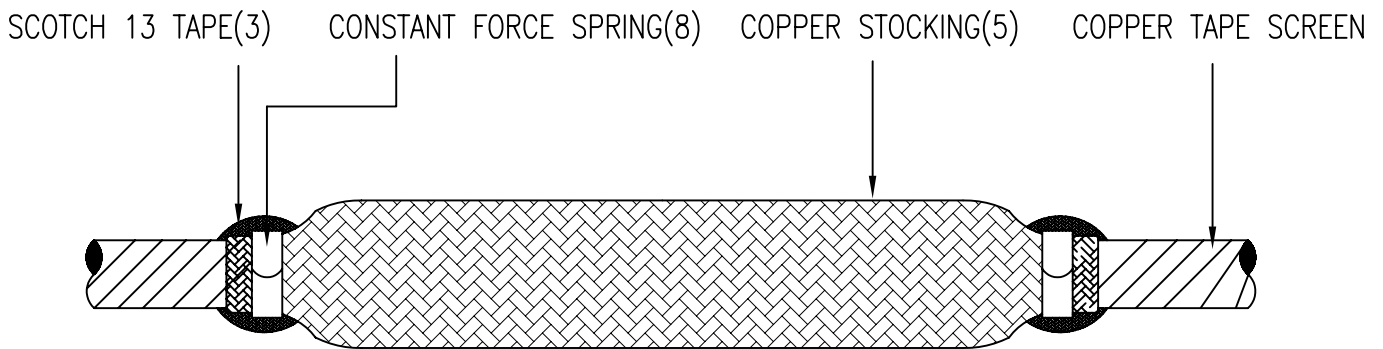
MM ²	50	70	95	120	150	185	240	300	400
X(mm)	25	25	25	30	30	35	35	20	25



- 5.1 SLIDE THE QS 1000 SPLICE BODY OVER THE CONNECTOR UP TO POSITION 'A'
- 5.2 USING POSITION 'A' AS A STARTING POINT, SHRINK THE QS1000 BODY ONTO THE CORE BY PULLING OUT THE SPIRAL.
- 5.3 ONCE THE SPLICE BODY HAS BEEN SHRUNK PAST ITS CENTRE MARK, AND BEFORE IT HAS BEEN SHRUNK FULLY ACROSS THE CONNECTOR, ENSURE THAT THE CENTRE MARK OF THE BODY IS CORRECTLY POSITIONED USING THE PVC TAPE MARKER AT 600mm.
IF NOT CORRECTLY POSITIONED, MAKE CORRECTION BY DISPLACEMENT.

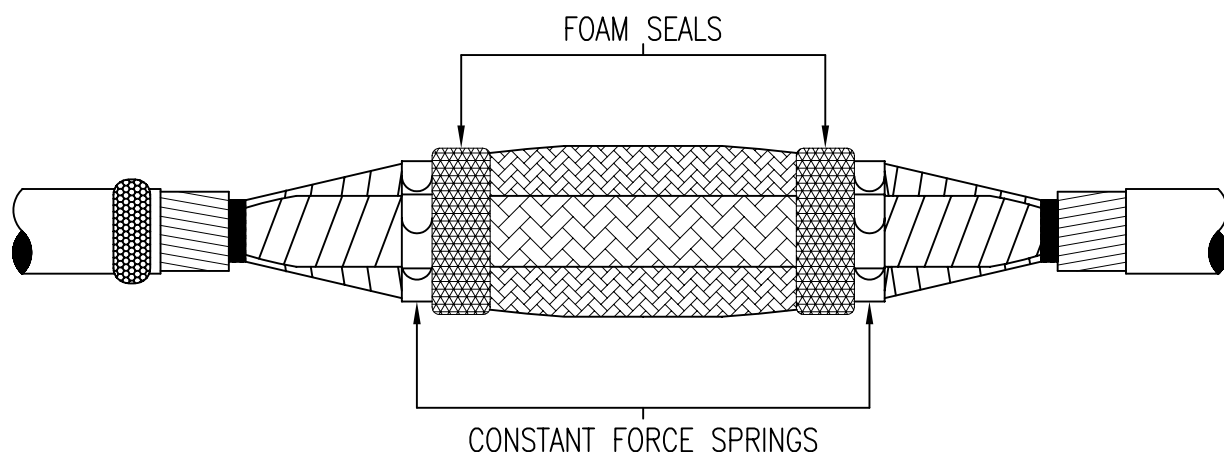
** PLEASE NOTE THAT THE SYMMETRICAL POSITION OF THE SPLICE BODY IS CRITICAL **

FIG.5



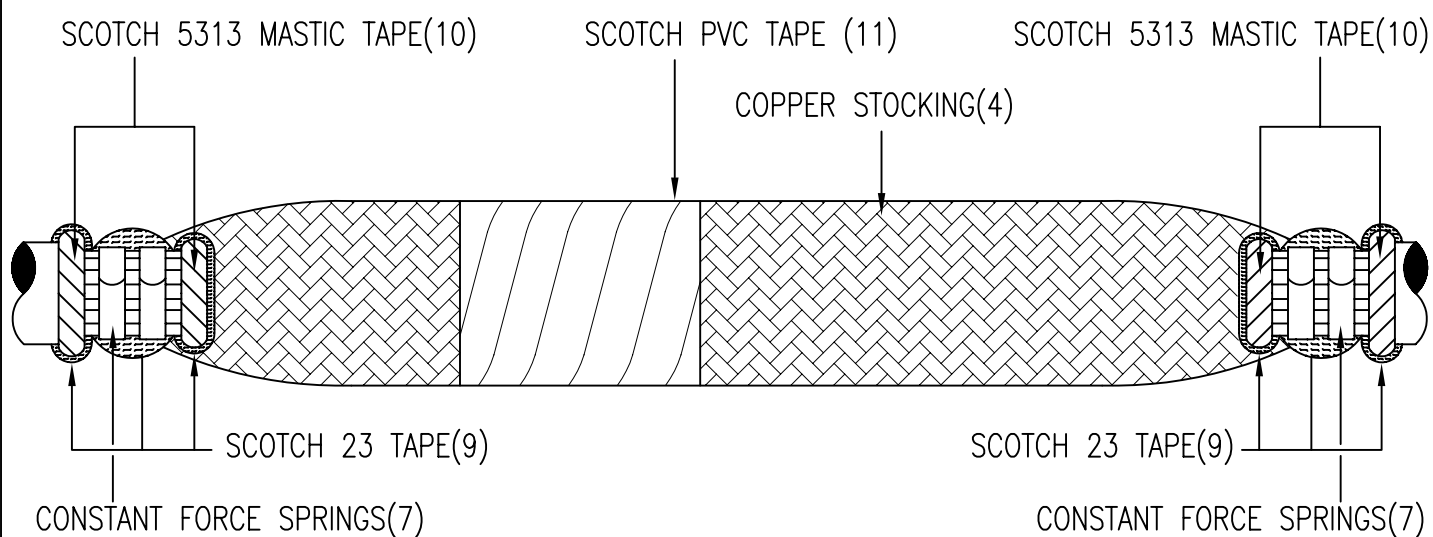
- 6.1 SLIDE THE INDIVIDUAL COPPER SCREEN STOCKING OVER THE CORE AND FIX BY MEANS OF A CONSTANT FORCE SPRING ON THE METALLIC SCREEN. CUT OFF THE REMAINDER OF THE STOCKING.
- 6.2 OVERWRAP THE CONSTANT FORCE SPRINGS WITH TWO HALF-LAPPED LAYERS OF SCOTCH 13 TAPE APPLIED IN SAME DIRECTION AS THE SPRING, AS SHOWN.
- 6.3 COMPLETE THE OTHER PHASES AS FROM FIG 3.

FIG.6



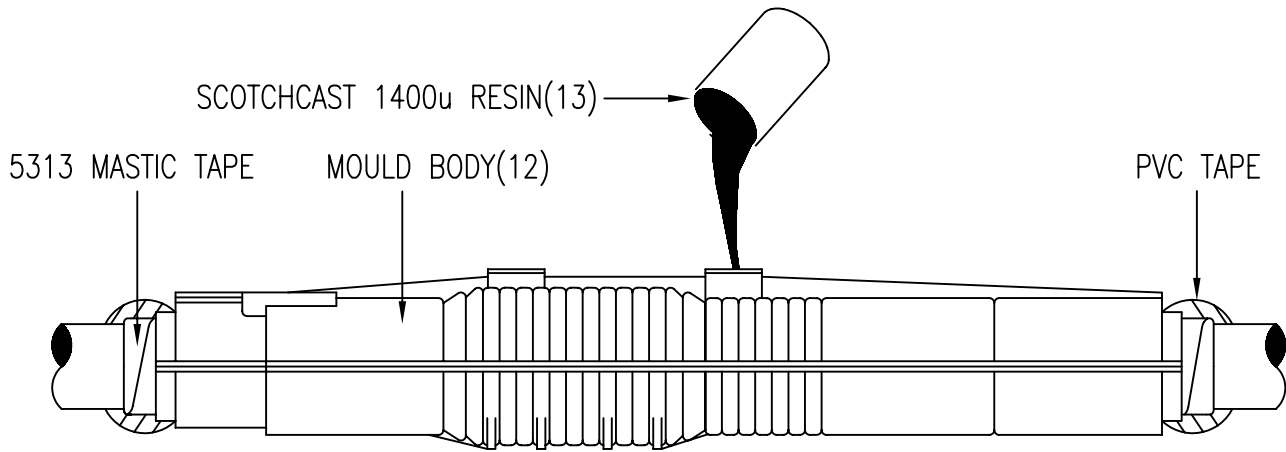
- 7.1 FIT THE FOAM SEALS IN FRONT OF THE CONSTANT FORCE SPRINGS AS SHOWN.
- 7.2 FIX WITH PVC TAPE.

FIG.7



- 8.1 APPLY A LAYER OF 5313 MASTIC AT THE END OF THE CABLE SHEATH ONTO THE ARMOUR AND A LAYER AT THE END OF THE ARMOUR ONTO THE BEDDING SHEATH, COVER WITH 23 TAPE. ENSURE THAT 50mm OF ARMOUR IS LEFT EXPOSED.
- 8.2 SLIDE THE COPPER STOCKING OVER THE JOINT.
- 8.3 CONNECT THE COPPER STOCKING TO THE SWA BY MEANS OF 2 CONSTANT FORCE SPRINGS ON EITHER END.
- 8.4 COVER THE CONSTANT FORCE SPRINGS WITH SCOTCH 23 TAPE APPLIED IN SAME DIRECTION AS SPRINGS.
- 8.5 COVER THE AREA OF THE SPLICE BODIES WITH ONE HALF LAPPED LAYER OF SCOTCH PVC TAPE.

FIG.8



- 9.1 CUT THE ENDS OF THE MOULD BODY TO THE APPROPRIATE STEP FOR THE CABLE DIAMETER.
- 9.2 FIT THE MOULD BODY AROUND THE JOINT ENSURING A MINIMUM OF 70mm OF CABLE SHEATH IS INSIDE THE MOULD AT EACH END. MARK THE POSITION OF THE MOULD ON THE CABLE SHEATH AND REMOVE THE MOULD.
- 9.3 APPLY A BEDDING OF BLACK MASTIC TAPE ONTO THE CABLE SHEATH AT THE POSITIONS MARKED.
- 9.4 FIT THE MOULD AROUND THE JOINT SO THAT THE ENDS BED INTO THE MASTIC APPLY ALL THE CLIPS SUPPLIED, EVENLY AROUND THE MOULD.
- 9.5 SEAL THE ENDS OF THE MOULD USING A FURTHER LAYER OF MASTIC TAPE AND BIND DOWN WITH PVC TAPE.
- 9.6 MIX THE RESIN AS PER THE INSTRUCTIONS AND POUR INTO THE MOULD.
- 9.7 DO NOT MOVE THE JOINT FOR TWO HOURS.

FIG.9