

## Company Directive

### STANDARD TECHNIQUE : CAØM/4

#### Relating to Procedures for Making LV Service Cable Branch Joints

##### Policy Summary

This Standard Technique document contains all the approved LV Service cold applied/pour Branch Joints for PVC Plain or Split Concentric cables. It shall be implemented in conjunction with the appropriate General Requirements in ST: CAØC.

This ST has not been written as a training document. It is not intended to be exhaustive in content and you must refer to your supervisor if you require training or instruction.

You shall work safely and skilfully, utilising the training/instruction you have already received, relating to the contents of this document and its cross-references.

You must make sure that you understand your job instructions and that you have the necessary tools and equipment for the job.

**Author:** Richard Summers

**Implementation Date:** February 2016

**Approved by**

**Policy Manager**

**Date:**

6 February 2016

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## **IMPLEMENTATION PLAN**

### **Introduction**

This Standard Technique has been updated to show Insulated Anchor Connectors (ANC) which will be replacing the SSIP connectors. The new connectors will have shear-headed grub screws and will be supplied with snap on shrouds.

### **Main Changes**

- Drawings altered to show the new connectors.

### **Impact of Changes**

No major impact – Insulation will need to be removed when fitting the new connectors

### **Implementation Actions**

Team Managers are to brief their teams on the contents of this policy to the relevant staff.

### **Implementation Timetable**

The new connectors will be introduced on the same E5 code when existing stocks have been used. Everything else within the joints remain unchanged.

<b>Document Revision &amp; Review Table</b>		
<b>Date</b>	<b>Comments</b>	<b>Author</b>
February 2016	<ul style="list-style-type: none"> <li>• Drawings changed to show Anchor Connectors</li> </ul>	Richard Summers
July 2014	<ul style="list-style-type: none"> <li>• Correction of General Requirement Numbers.</li> <li>• Inclusion of cable solvent wipes</li> </ul>	Richard Summers

# **ST: CAØM/4      PROCEDURES FOR MAKING LV SERVICE CABLE BRANCH JOINTS**

## **INTRODUCTION**

This Standard Technique document contains all the approved service cable branch joints, which shall be implemented in conjunction with the appropriate General Requirements contained in ST: CAØC, including: -

1.      General Cleanliness and Accident Prevention
2.      General Jointing Procedures - Dead Cables
3.      General Jointing Procedures and Safety Precautions - Live Cables

**Resin encapsulated joints must not be broken down.**

If the need arises to undertake a service branch joint configuration (i.e. non-standard) not covered within this Standard Technique the Policy Manager, Avonbank, is to be consulted.

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**Note: - Any reference to plain concentric equally applies to hybrid.  
The phase conductor insulation may be either XLPE or PVC.**

**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS.**

**JOINTING PROCEDURE 7.201**

**PVC PLAIN CONCENTRIC - PVC PLAIN CONCENTRIC  
SERVICE CABLE BRANCH JOINT - SINGLE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**

## **JOINTING PROCEDURE 7.201**

### **MATERIALS LIST**

#### **CABLE SIZES - 25/35mm<sup>2</sup> Hybrid or 16/25mm<sup>2</sup> Cu Plain Conc**

<b>Item</b>	<b>Quantity</b>
Shell 1049	1
Resin (3 x 1.3)	3.9 litres
Connector BTCL-6-130W	1
Connector ANC	1

#### **ADDITIONAL ITEMS FOR EACH JOINT**

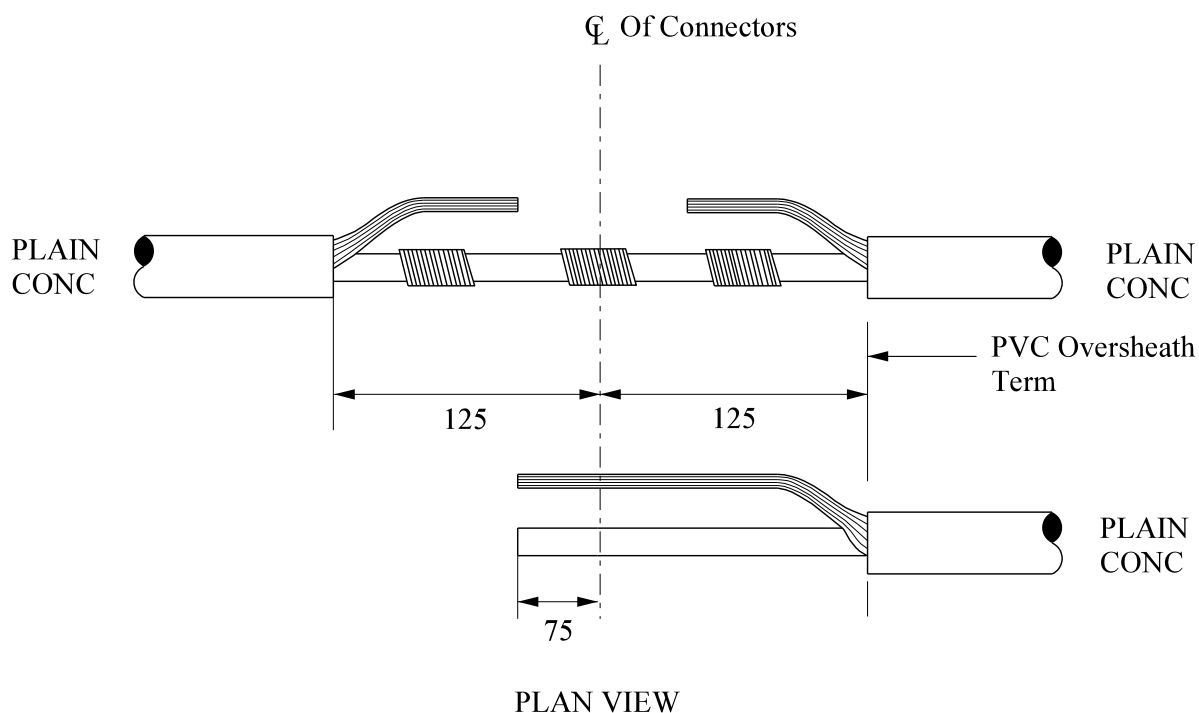
Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item number (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

## JOINTING PROCEDURE 7.201

Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.201.1, 7.201.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE - Preparation</b>	
2. Open and cut cable in accordance with General Requirement	13
3. Prepare neutral/earth wires for jointing	7
<b>MAIN CABLE – Preparation to completion of joint</b>	
4. Remove PVC oversheath	5
5. Lift and cut half the neutral/earth wires	13
6. Connect the cut neutral/earth wires	24
7. Lift and cut remaining neutral/earth wires	13
8. Connect remaining neutral/earth wires including branch neutral/earth wires	24
9. Apply temporary shrouding	17
10. Make and insulate phase connection	24/25
11. Remove temporary shrouding applied in 9	--
12. Form neutral/earth wires into their final positions	--
13. Abrade and build up oversheaths	26
14. Thoroughly degrease the joint	29
15. Prepare and fit shell, ensuring 15mm clearance	30
16. Mix and pour resin	31


All dimensions in mm



Cable Size	No: Of Main Neutral / Earth Wires To Be Disconnected At A Time	Total No: Of Neutral / Earth Wires
25 HYB 16 cu	14	28
35 HYB 25 cu	12	24

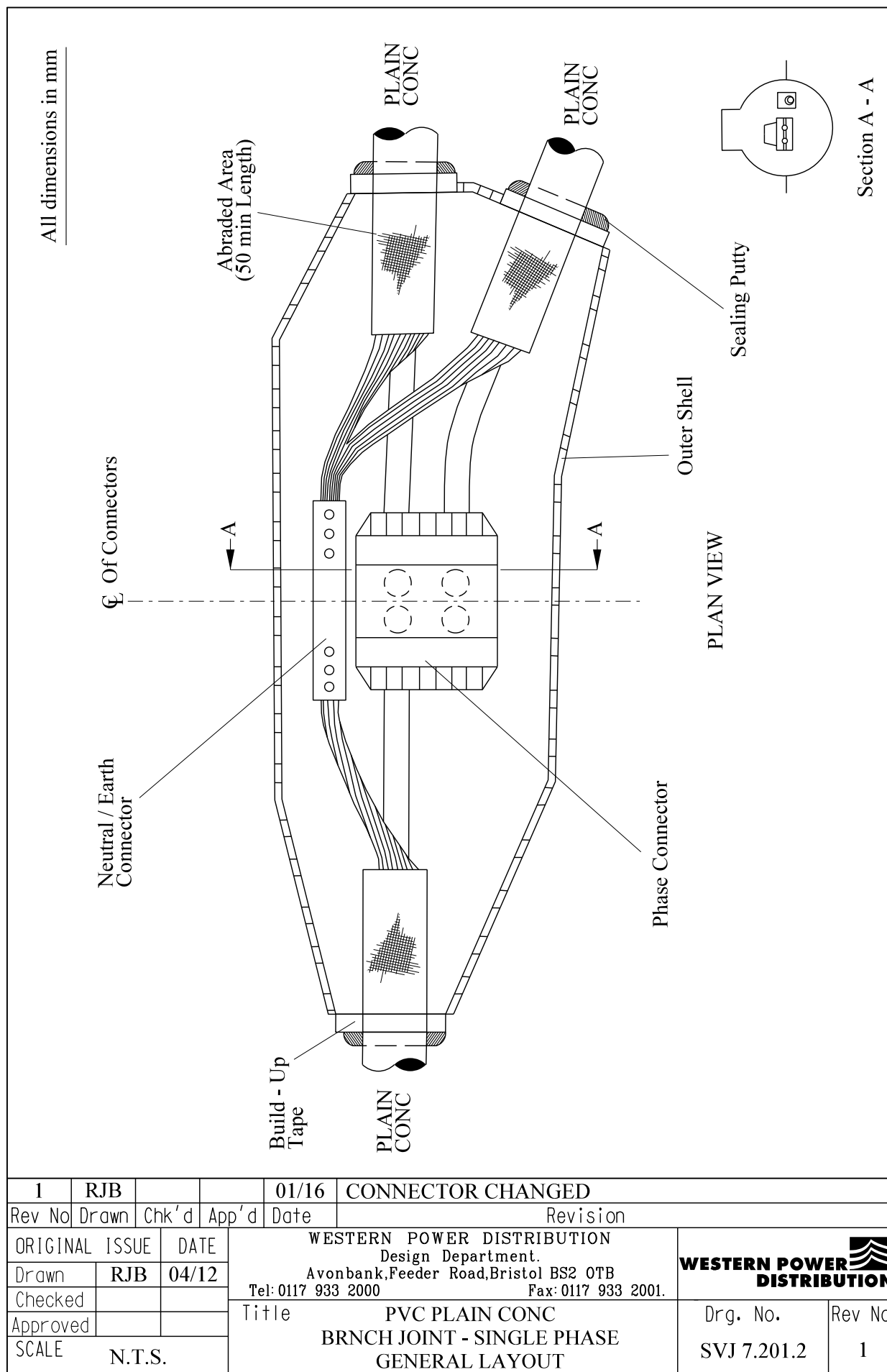
NOTE :- The Neutral / Earth Wires Are To Be Cut On The Centre Line Of The Connectors.

The Total Number Of Neutral / Earth Wires May Vary Depending On Cable Age And The Cable Maker.

Rev No	Drawn	Chk'd	App'd	Date	Revision	
ORIGINAL	ISSUE	DATE	<b>WESTERN POWER DISTRIBUTION</b> Design Department. Avonbank, Feeder Road, Bristol BS2 0TB Tel: 0117 933 2000 Fax: 0117 933 2001.			 <b>WESTERN POWER DISTRIBUTION</b>
Drawn	RJB	04/12				
Checked						
Approved						
SCALE	N.T.S.		Title <b>PVC PLAIN CONC</b> <b>BRANCH JOINT - SINGLE PHASE</b> <b>STRIPPING DIMENSIONS.</b>			Drg. No. <b>SVJ 7.201.1</b>
						Rev No

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**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS.**

**JOINTING PROCEDURE 7.202**

**PVC SPLIT CONCENTRIC - PVC SPLIT CONCENTRIC  
SERVICE CABLE BRANCH JOINT - SINGLE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**

## **JOINTING PROCEDURE 7.202**

### **MATERIALS LIST**

#### **CABLE SIZES - 16/25mm<sup>2</sup> Cu Split Conc**

<b>Item</b>	<b>Quantity</b>
Shell 1049	1
Resin (3 x 1.3)	3.9 litres
Connector BTCL-6-130W	2
Connector SSIPC	1

#### **ADDITIONAL ITEMS FOR EACH JOINT**

Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item numbers (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

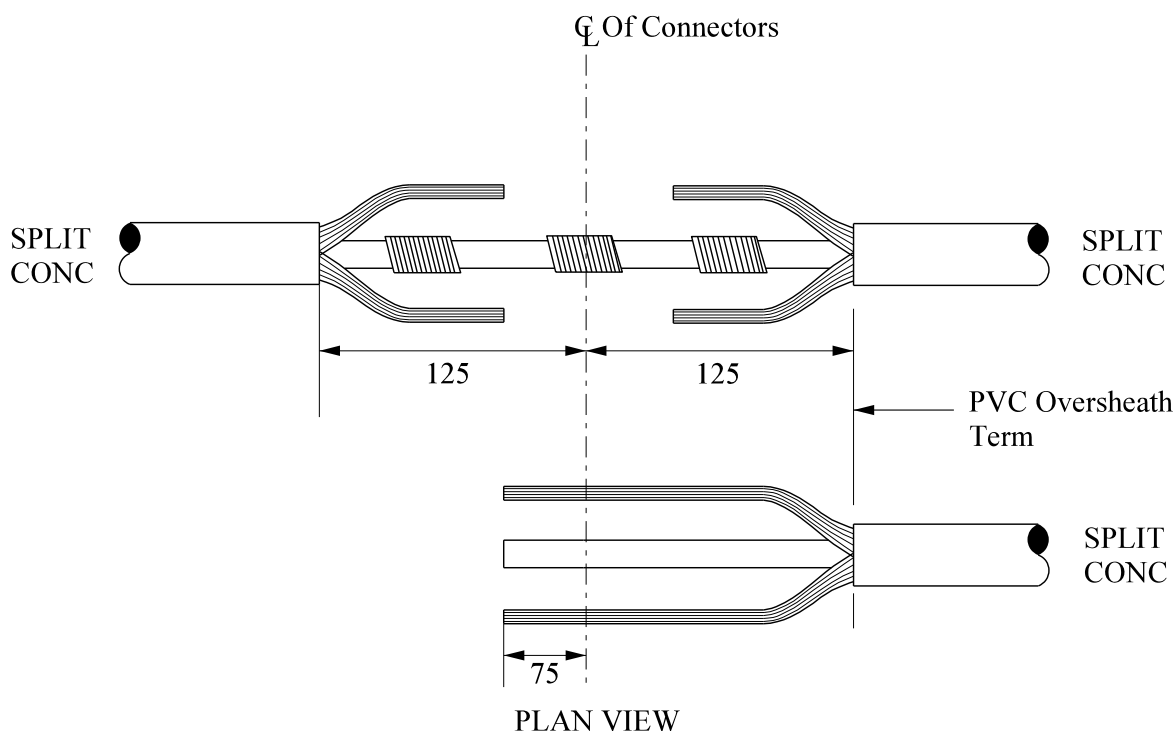
## JOINTING PROCEDURE 7.202

Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.202.1, 7.202.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE - Preparation</b>	
2. Open and cut cable in accordance with General Requirement	13
3. Prepare neutral and earth wires for jointing	7
<b>MAIN CABLE - Preparation to completion of joint</b>	
4. Remove PVC oversheath	5
6. Lift and cut half the earth wires	13
6. Connect the cut earth wires	24
7. Lift and cut remaining earth wires	13
9. Connect remaining earth wires including branch earth wires	24
9. Apply temporary shrouding	17
10. Lift and cut half the neutral wires	13
11. Connect the cut neutral wires	24
12. Lift and cut remaining neutral wires	13
13. Connect remaining neutral wires including branch neutral wires and insulate	24/25
14. Make and insulate phase connection	24/25
15. Remove temporary shrouding applied in 9	--
16. Form neutral and earth wires into their final positions	--

## **JOINTING PROCEDURE 7.202 - Continued**

17.	Abrade and build up oversheaths	26
18.	Thoroughly degrease the joint	29
19.	Prepare and fit shell, ensuring 15mm clearance	30
20.	Mix and pour resin	31


All dimensions in mm



Cable Size	No: Of Main Neutral / Earth Wires To Be Disconnected At A Time		Total No: Of Neutral / Earth Wires	
	Neutral	Earth	Neutral	Earth
16 cu	4	2	7	4
25 cu	5	2	11	4

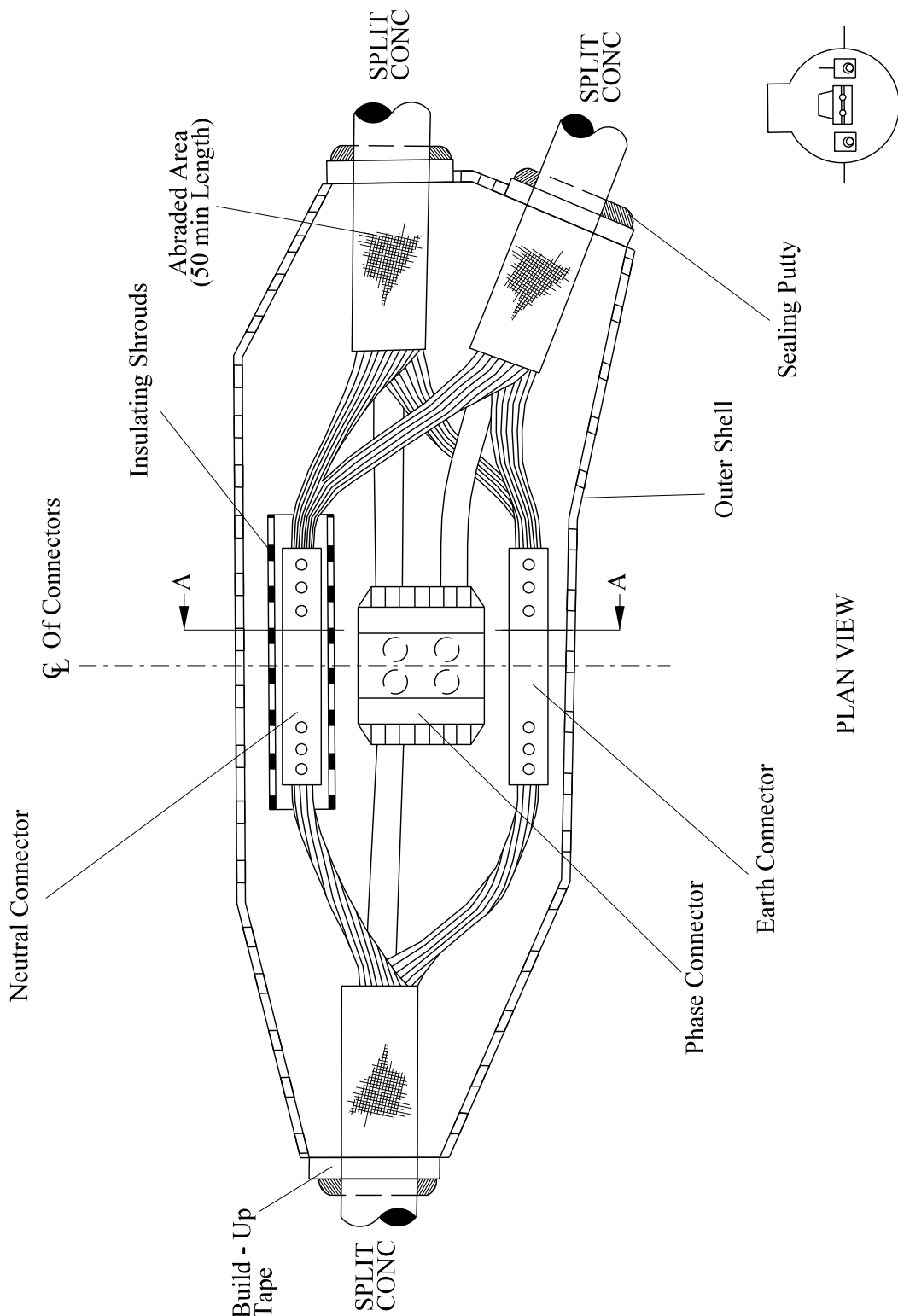
NOTE :- The Neutral / Earth Wires Are To Be Cut On The Centre Line Of The Connectors.

The Total Number Of Neutral / Earth Wires May Vary Depending On Cable Age And The Cable Maker.

Rev No	Drawn	Chk'd	App'd	Date	Revision			
ORIGINAL	ISSUE	DATE	WESTERN POWER DISTRIBUTION Design Department. Avonbank, Feeder Road, Bristol BS2 0TB Tel: 0117 933 2000 Fax: 0117 933 2001.			 <b>WESTERN POWER DISTRIBUTION</b>		
Drawn	RJB	04/12						
Checked								
Approved								
SCALE	N.T.S.		Title PVC SPLIT CONC BRANCH JOINT - SINGLE PHASE STRIPPING DIMENSIONS.			Drg. No. SVJ 7.202.1	Rev No	

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All dimensions in mm



1	RJB			01/16	CONNECTOR CHANGED
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ORIGINAL ISSUE	DATE	WESTERN POWER DISTRIBUTION Design Department. Avonbank, Feeder Road, Bristol BS2 0TB Tel: 0117 933 2000 Fax: 0117 933 2001.			
Drawn	RJB	04/12	Title		
Checked					
Approved			PVC SPLIT CONC BRANCH JOINT - SINGLE PHASE STRIPPING DIMENSIONS		
SCALE	N.T.S.				
			Drg. No.		Rev No
			SVJ 7.202.2		1

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**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS.**

**JOINTING PROCEDURE 7.203**

**PVC PLAIN CONCENTRIC - PVC SPLIT CONCENTRIC  
SERVICE CABLE BRANCH JOINT - SINGLE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**



## **JOINTING PROCEDURE 7.203**

### **MATERIALS LIST**

**CABLE SIZES - 25/35mm<sup>2</sup> Hybrid or 16/25mm<sup>2</sup> Cu Plain Conc - 16/25mm<sup>2</sup> Cu Split Conc**

<b>Item</b>	<b>Quantity</b>
Shell 1049	1
Resin (3 x 1.3)	3.9 litres
Connector BTCL-6-130W	1
Connector SSIPC	1

### **ADDITIONAL ITEMS FOR EACH JOINT**

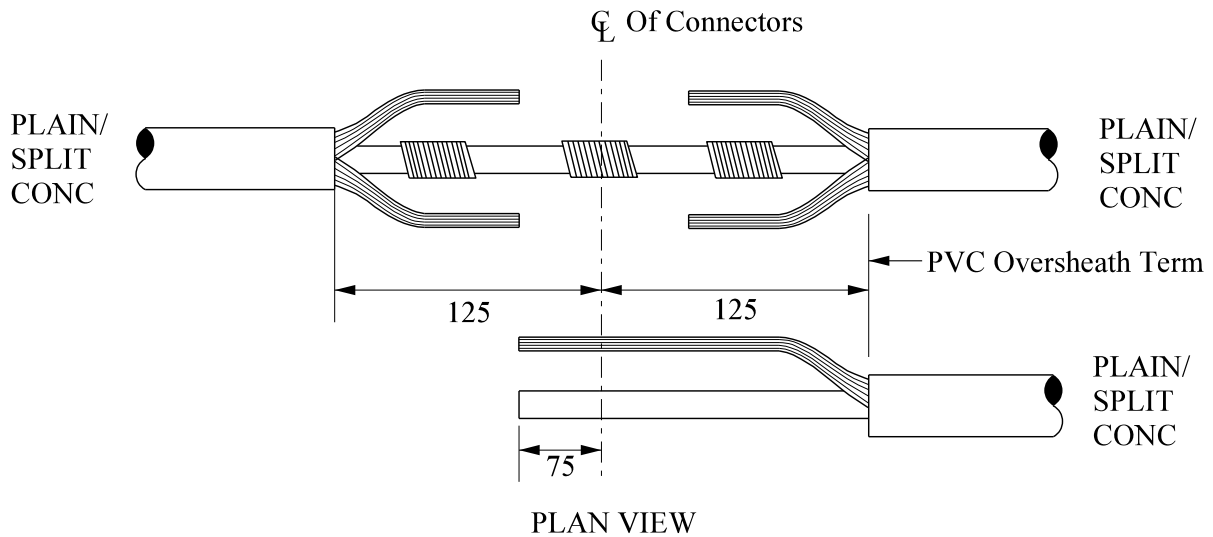
Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery Cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item numbers (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

## JOINTING PROCEDURE 7.203

Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.203.1, 7.203.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE - Preparation</b>	
2. Open and cut cable in accordance with General Requirement	13
3. Prepare neutral/earth wires for jointing	7
<b>MAIN CABLE – Preparation to completion of joint</b>	
4. Remove PVC oversheath	5
7. Lift and cut half the neutral/earth wires	13
6. Connect the cut neutral/earth wires	24
7. Lift and cut remaining neutral/earth wires	13
10. Connect remaining neutral/earth wires including branch neutral/earth wires	24
9. Apply temporary shrouding	17
10. Make and insulate phase connection	24/25
11. Remove temporary shrouding applied in 9	--
12. Form neutral/earth wires into their final positions	--
13. Abrade and build up oversheaths	26
14. Thoroughly degrease the joint	29
15. Prepare and fit shell, ensuring 15mm clearance	30
16. Mix and pour resin	31

All dimensions in mm



	PLAIN CONCENTRIC	
Cable Size	No: Of Neutral / Earth Wires To Be Disconnected At A Time	Total No: Of Neutral / Earth Wires
25 HYB 16 cu	14	28
35 HYB 25 cu	12	24

	SPLIT CONCENTRIC			
Cable Size	No: Of Main Neutral / Earth Wires To Be Disconnected At A Time		Total No: Of Neutral / Earth Wires	
	Neutral	Earth	Neutral	Earth
16 cu	4	2	7	4
25 cu	5	2	11	4

**IMPORTANT:**

Before Making This Joint Check With Supervisor Application Is Correct.

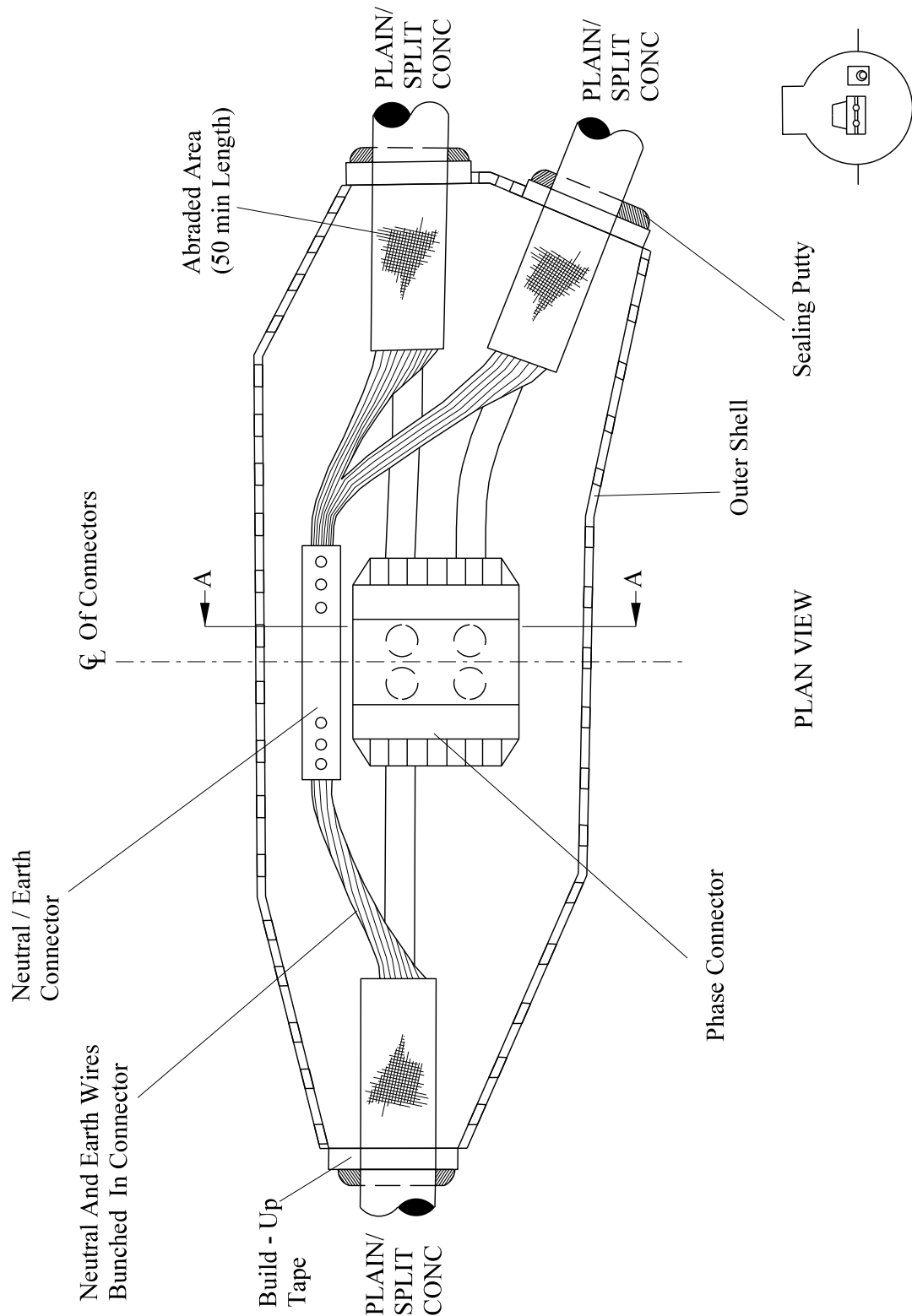
**NOTE:-** The Neutral / Earth Wires Are To Be Cut On The Centre Line Of The Connectors.

The Total Number Of Neutral / Earth Wires May Vary Depending On Cable Age And The Cable Maker.

Rev No	Drawn	Chk'd	App'd	Date	Revision
ORIGINAL ISSUE		DATE		<div>WESTERN POWER DISTRIBUTION Design Department. Avonbank,Feeder Road,Bristol BS2 0TB Tel: 0117 933 2000      Fax: 0117 933 2001.</div> <div>WESTERN POWER DISTRIBUTION</div>	
Drawn	RJB	04/12			
Checked					
Approved					
SCALE		N.T.S.		Title	
				PVC PLAIN CONC - PVC SPLIT CONC BRANCH JOINT - SINGLE PHASE STRIPPING DIMENSIONS	
				Drg. No. SVJ 7.203.1	
				Rev No	


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All dimensions in mm



Section A - A

PLAN VIEW

1	RJB			01/16	CONNECTOR CHANGED			
Rev No	Drawn	Chk'd	App'd	Date	Revision			
ORIGINAL ISSUE		DATE		WESTERN POWER DISTRIBUTION Design Department. Avonbank,Feeder Road,Bristol BS2 0TB Tel: 0117 933 2000 Fax: 0117 933 2001.			 <b>WESTERN POWER DISTRIBUTION</b>	
Drawn	RJB	04/12		Title PVC PLAIN CONC - PVC SPLIT CONC				Drg. No.
Checked				BRANCH JOINT - SINGLE			SVJ 7.203.2	1
Approved				PHASE GENERAL LAYOUT				
SCALE		N.T.S.						

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**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS**

**JOINTING PROCEDURE 7.204**

**PVC PLAIN CONCENTRIC - PVC PLAIN CONCENTRIC  
SERVICE CABLE BRANCH JOINT - THREE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**

## **JOINTING PROCEDURE 7.204**

### **MATERIALS LIST**

#### **CABLE SIZES - 25/35mm<sup>2</sup> Hybrid or 16/25mm<sup>2</sup>cu Plain Conc**

<b>Item</b>	<b>Quantity</b>
Shell 1583	1
Resin	10 litres (2 x 5 litres)
Connector BTCL-6-130W	1
Connector SSIPC	3

#### **ADDITIONAL ITEMS FOR EACH JOINT**

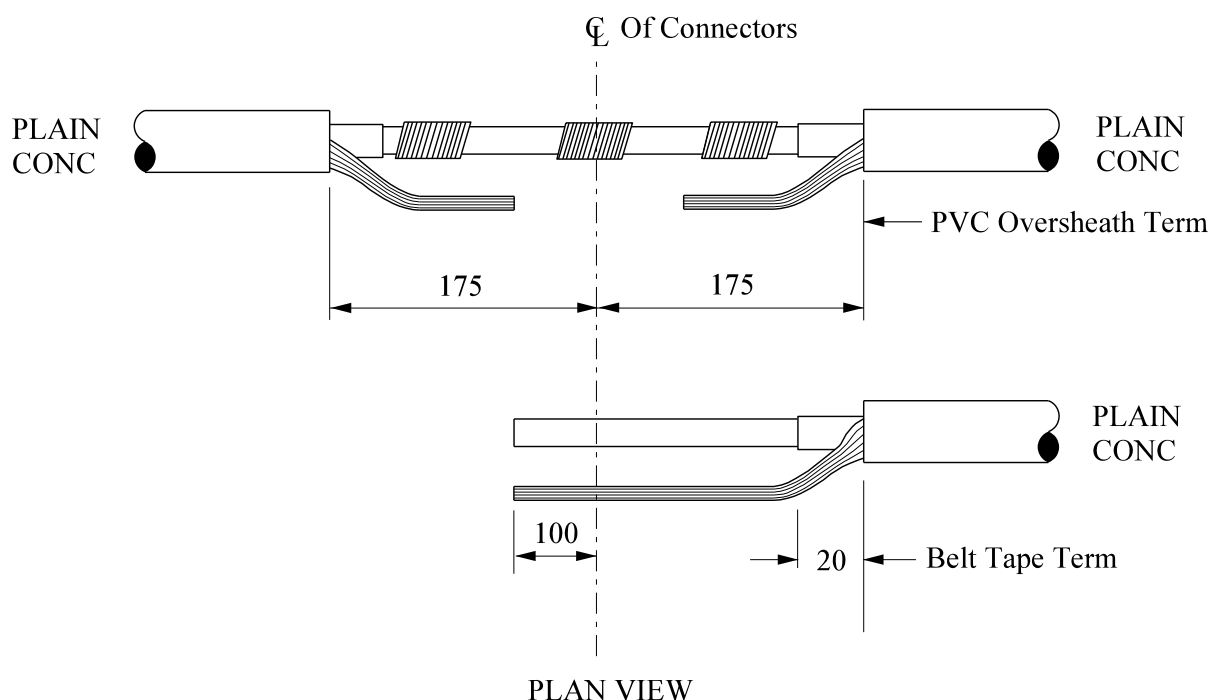
Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item numbers (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

## JOINTING PROCEDURE 7.204

Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.204.1, 7.204.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE - Preparation</b>	
2. Open and cut cable in accordance with General Requirement	13
3. Prepare neutral/earth wires for jointing	7
<b>MAIN CABLE – Preparation to completion of joint</b>	
4. Remove PVC oversheath	5
8. Lift and cut half the neutral/earth wires	13
6. Connect the cut neutral/earth wires	24
7. Lift and cut remaining neutral/earth wires	13
11. Connect remaining neutral/earth wires including branch neutral/earth wires	24
9. Apply temporary shrouding	17
10. Make and insulate phase connection(s)	24/25
11. Remove temporary shrouding applied in 9	--
12. Form the neutral/earth wires into their final positions	--
13. Abrade and build up oversheaths	26
14. Thoroughly degrease the joint	29
15. Prepare and fit shell, ensuring 15mm clearance	30
16. Mix and pour resin	31


All dimensions in mm



Cable Size	No: Of Main Neutral / Earth Wires To Be Disconnected At A Time	Total No: Of Neutral / Earth Wires
25 HYB	22	44
35 HYB	30	60
16 cu	24	48
25 cu	28	56

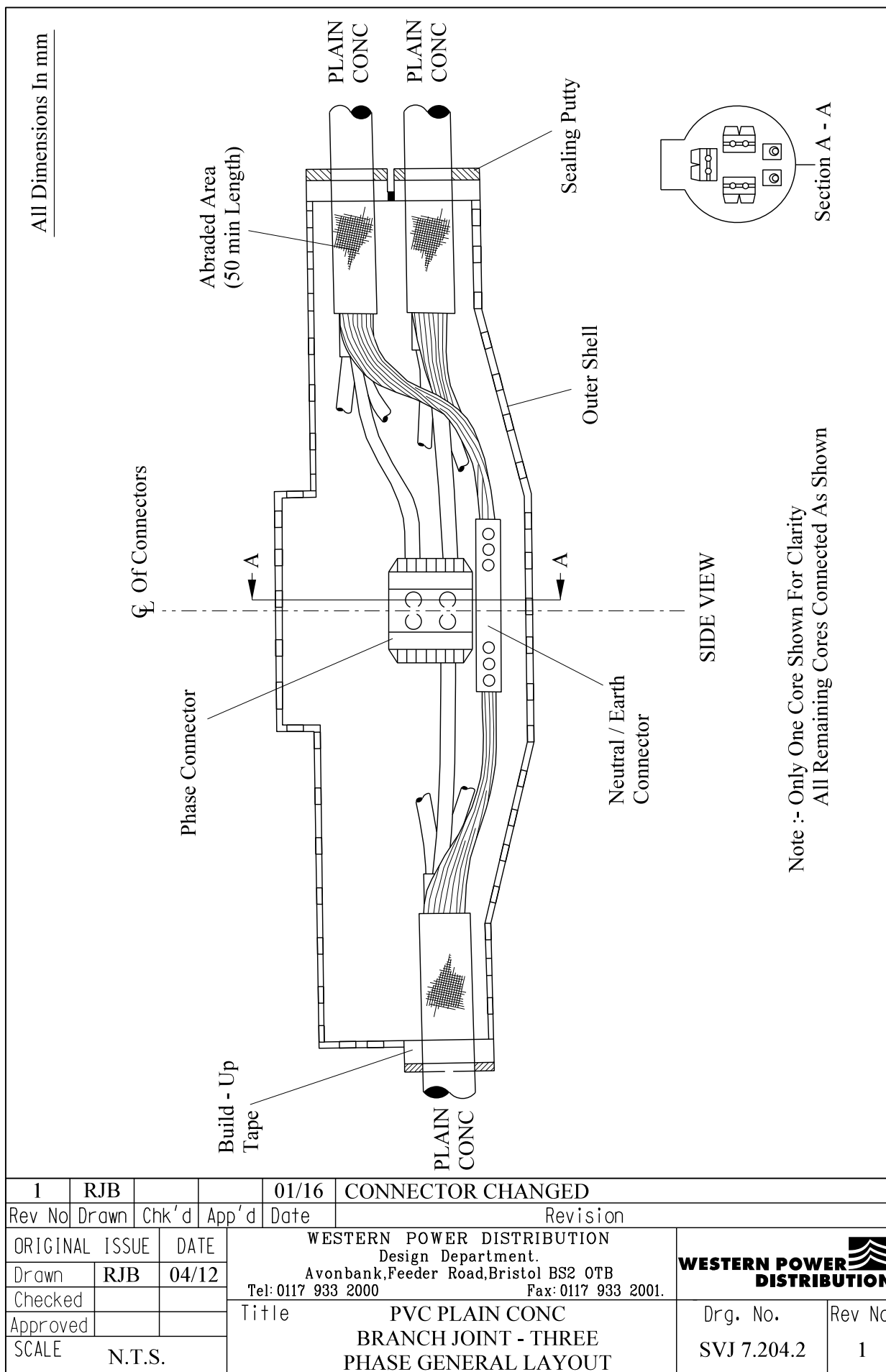
NOTE :- The Neutral / Earth Wires Are To Be Cut On The Centre Line Of The Connectors.

The Total Number Of Neutral / Earth Wires May Vary Depending On Cable Age And Cable Maker.

Rev No	Drawn	Chk'd	App'd	Date	Revision
ORIGINAL ISSUE		DATE		WESTERN POWER DISTRIBUTION Design Department. Avonbank, Feeder Road, Bristol BS2 0TB Tel: 0117 933 2000 Fax: 0117 933 2001.	
Drawn	RJB	04/12		 <b>WESTERN POWER DISTRIBUTION</b>	
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Approved					
SCALE		N.T.S.		Title	
				PVC PLAIN CONC BRANCH JOINT - THREE PHASE STRIPPING DIMENSIONS.	
				Drg. No. SVJ 7.204.1	
				Rev No	

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**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS**

**JOINTING PROCEDURE 7.205**

**PVC SPLIT CONCENTRIC - PVC SPLIT CONCENTRIC  
SERVICE CABLE BRANCH JOINT - THREE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**

## **JOINTING PROCEDURE 7.205**

### **MATERIALS LIST**

#### **CABLE SIZES - 25mm<sup>2</sup> Cu Split Conc**

<b>Item</b>	<b>Quantity</b>
Shell 1583	1
Resin	10 litres (2 x 5 litres)
Connectors BTCL-6-130W	2
Connector SSIPC	3

### **ADDITIONAL ITEMS FOR EACH JOINT**

Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item numbers (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

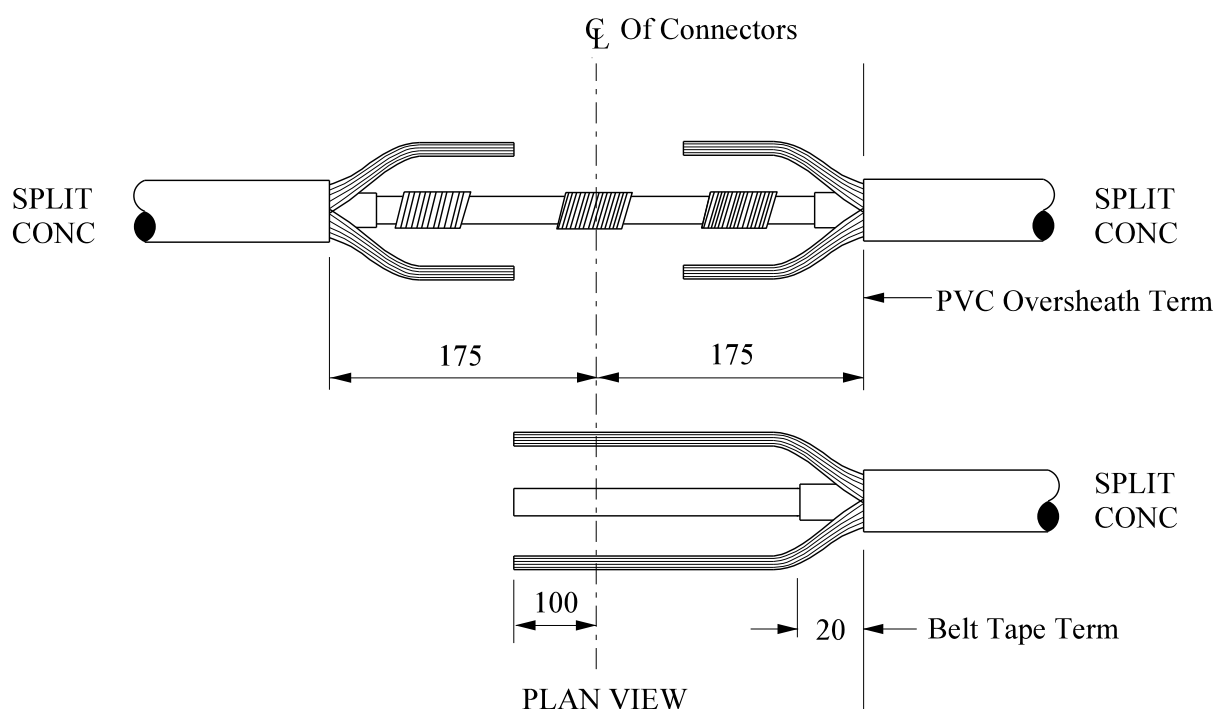
## JOINTING PROCEDURE 7.205

Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.205.1, 7.205.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE - Preparation</b>	
2. Open and cut cable in accordance with General Requirement	13
3. Prepare neutral and earth wires for jointing	7
<b>MAIN CABLE – Preparation to completion of joint</b>	
4. Remove PVC oversheath	5
9. Lift and cut half the earth wires	13
6. Connect the cut earth wires	24
7. Lift and cut remaining earth wires	13
12. Connect remaining earth wires including branch earth wires	24
9. Apply temporary shrouding	17
10. Lift and cut half the neutral wires	13
11. Connect the cut neutral wires	24
12. Lift and cut remaining neutral wires	13
13. Connect remaining neutral wires including branch neutral wires and insulate	24/25
14. Make and insulate phase connection(s)	24/25
15. Remove temporary shrouding applied in 9	--
16. Form neutral and earth wires into their final positions	--

## **JOINTING PROCEDURE 7.205 - Continued**

17.	Abrade and build up oversheaths	26
18.	Thoroughly degrease the joint	29
19.	Prepare and fit shell, ensuring 15mm clearance	30
20.	Mix and pour resin	31


All dimensions in mm



Cable Size	No: Of Main Neutral / Earth Wires To Be Disconnected At A Time		Total No: Of Neutral / Earth Wires	
	Neutral	Earth	Neutral	Earth
25 cu	15	5	29	9

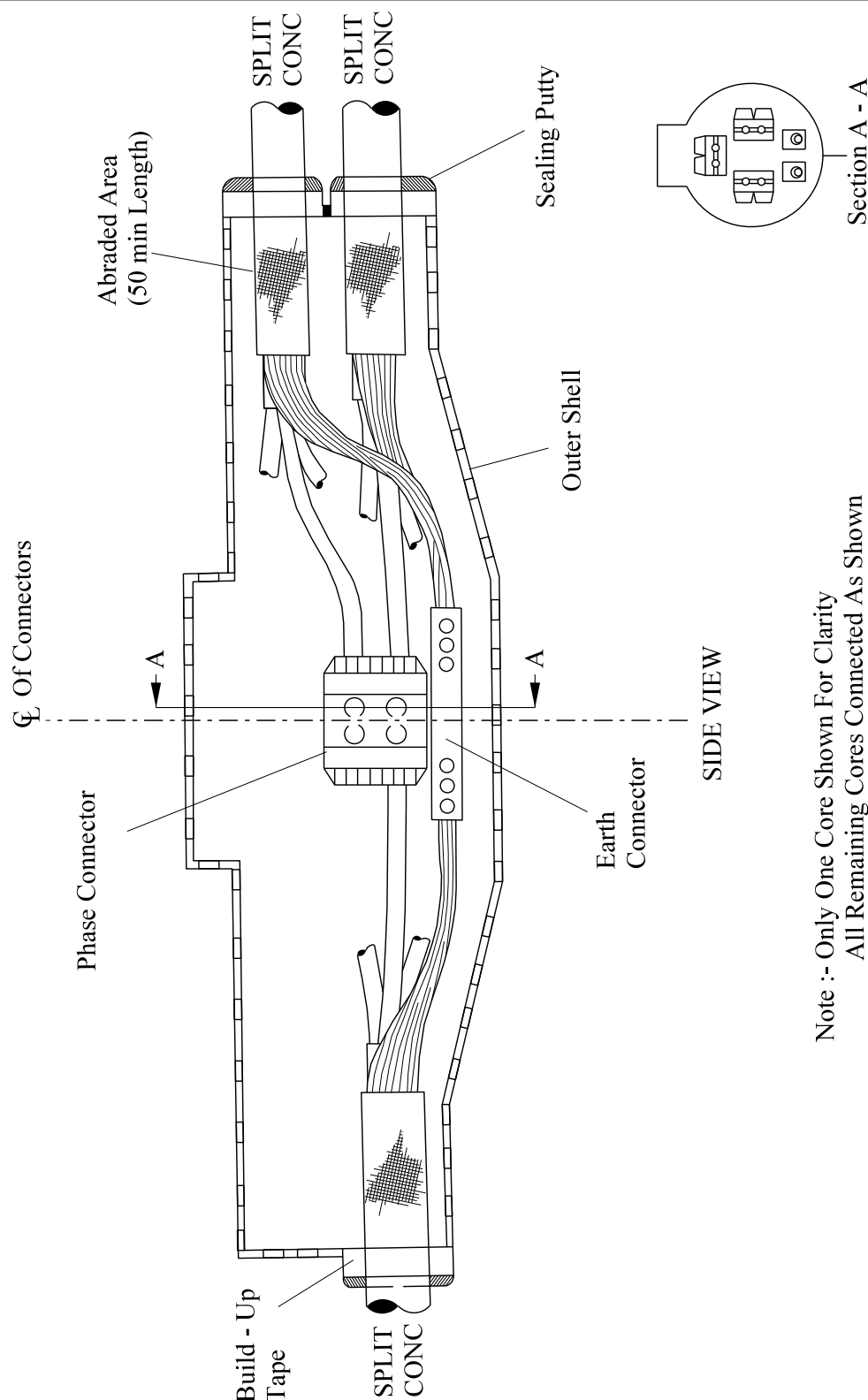
NOTE :- The Neutral / Earth Wires Are To Be Cut On The Centre Line Of The Connectors.

The Total Number Of Neutral / Earth Wires May Vary Depending On Cable Age And The Cable Maker.


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Drawn	RJB	04/12		WESTERN POWER DISTRIBUTION 	
Checked					
Approved				Title	
SCALE		N.T.S.		PVC SPLIT CONC BRANCH JOINT - THREE PHASE STRIPPING DIMENSIONS	
				Drg. No. SVJ 7.205.1	
				Rev No	

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All dimensions in mm



Note :- Only One Core Shown For Clarity  
All Remaining Cores Connected As Shown

1	RJB			01/16	CONNECTOR CHANGED
Rev No	Drawn	Chk'd	App'd	Date	Revision
ORIGINAL ISSUE					
Drawn	RJB	04/12			
Checked					
Approved					
SCALE	N.T.S.				
				WESTERN POWER DISTRIBUTION Design Department. Avonbank, Feeder Road, Bristol BS2 0TB Tel: 0117 933 2000 Fax: 0117 933 2001.	
				Title PVC SPLIT CONC BRANCH JOINT - THREE PHASE GENERAL LAYOUT	
				 Drg. No. SVJ 7.205.2 Rev No 1	

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**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS**

**JOINTING PROCEDURE 7.206**

**PVC PLAIN CONCENTRIC - PVC SPLIT CONCENTRIC  
SERVICE CABLE BRANCH JOINT - THREE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**



## **JOINTING PROCEDURE 7.206**

### **MATERIALS LIST**

**CABLE SIZES - 25/35mm<sup>2</sup> Hybrid or 16/25mm<sup>2</sup> Cu Plain Conc - 25mm<sup>2</sup> Cu Split Conc**

<b>Item</b>	<b>Quantity</b>
Shell 1583	1
Resin	10 litres (2 x 5 litres)
Connector BTCL-6-130W	1
Connector SSIPC	3

### **ADDITIONAL ITEMS FOR EACH JOINT**

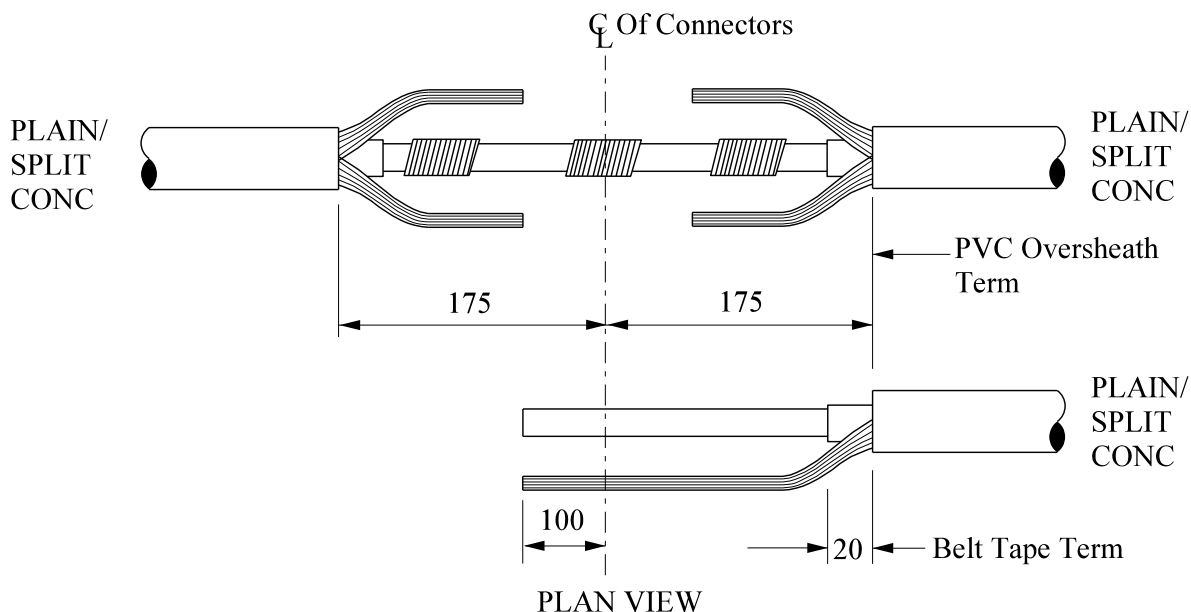
Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item numbers (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

## JOINTING PROCEDURE 7.206

Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.206.1, 7.206.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE - Preparation</b>	
2. Open and cut cable in accordance with General Requirement	13
3. Prepare neutral/earth wires for jointing	7
<b>MAIN CABLE – Preparation to completion of joint</b>	
4. Remove PVC oversheath	5
10. Lift and cut half the neutral/earth wires	13
6. Connect the cut neutral/earth wires	24
7. Lift and cut remaining neutral/earth wires	13
13. Connect remaining neutral/earth wires including branch neutral/earth wires	24
9. Apply temporary shrouding	17
10. Make and insulate phase connection(s)	24/25
11. Remove temporary shrouding applied in 9	--
12. Form neutral/earth wires into their final positions	--
13. Abrade and build up oversheaths	26
14. Thoroughly degrease the joint	29
15. Prepare and fit shell, ensuring 15mm clearance	30
16. Mix and pour resin	31

All dimensions in mm



PLAIN CONCENTRIC		
Cable Size	No: Of Main Neutral / Earth Wires To Be Disconnected At A Time	Total No: Of Neutral / Earth Wires
25 HYB	22	44
35 HYB	30	60
16 cu	24	48
25 cu	28	56


SPLIT CONCENTRIC				
Cable Size	No: Of Main Neutral / Earth Wires To Be Disconnected At A Time		Total No: Of Neutral / Earth Wires	
	Neutral	Earth	Neutral	Earth
25 cu	15	5	29	9

#### IMPORTANT:-

Before Making This Joint Check With Supervisor Application Is Correct.

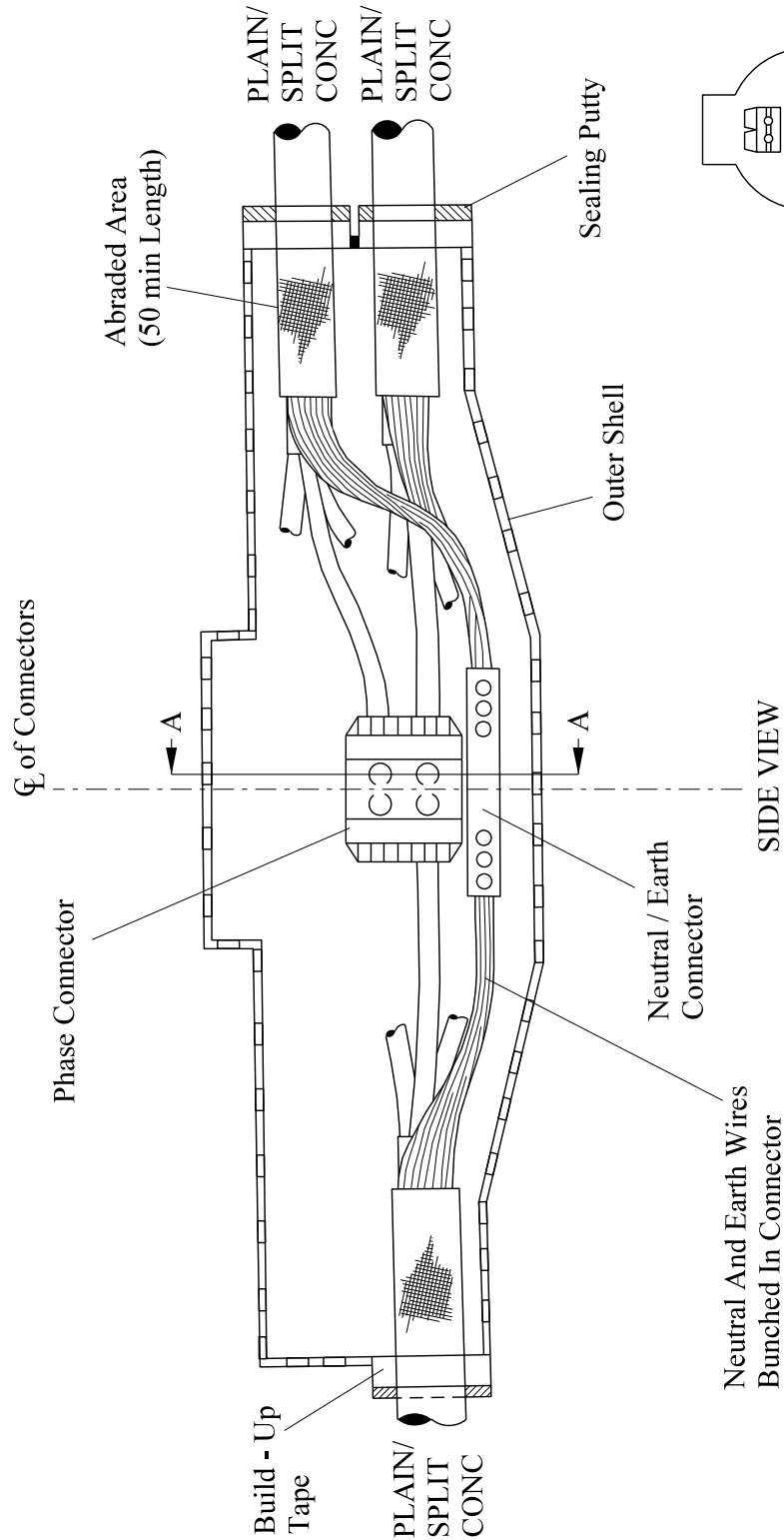
NOTE:- The Neutral / Earth Wires Are To Be Cut On The Centre Line Of The Connectors.

The Total Number Of Neutral / Earth Wires May Vary Depending On Cable Age And The Cable Maker.

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ORIGINAL ISSUE		DATE		<div>WESTERN POWER DISTRIBUTION</div> <div>Design Department.</div> <div>Avonbank, Feeder Road, Bristol BS2 0TB</div> <div>Tel: 0117 933 2000      Fax: 0117 933 2001.</div> <div></div>	
Drawn	RJB	04/12			
Checked				Title      PVC PLAIN CONC - PVC SPLIT CONC BRANCH JOINT - THREE PHASE STRIPPING DIMENSIONS	
Approved					
SCALE      N.T.S.				Drg. No. SVJ 7.206.1	Rev No

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All dimensions in mm



Note :- Only One Core Shown For Clarity  
All Remaining Cores Connected As Shown

1	RJB			01/16	CONNECTOR CHANGED
Rev No	Drawn	Chk'd	App'd	Date	Revision
ORIGINAL ISSUE	DATE	WESTERN POWER DISTRIBUTION Design Department. Avonbank, Feeder Road, Bristol BS2 0TB Tel: 0117 933 2000 Fax: 0117 933 2001.			
Drawn	RJB	04/12	Title		
Checked					
Approved			PVC PLAIN CONC - PVC SPLIT CONC BRANCH JOINT - THREE PHASE GENERAL LAYOUT		
SCALE	N.T.S.				
			WESTERN POWER DISTRIBUTION		
			Drg. No. SVJ 7.206.2		Rev No 1

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**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS**

**JOINTING PROCEDURE 7.207**

**PVC PLAIN CONCENTRIC - 35mm<sup>2</sup> CNE WAVECON  
SERVICE CABLE BRANCH JOINT - THREE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**

## **JOINTING PROCEDURE 7.207**

### **MATERIALS LIST**

**CABLE SIZES — 25/35 Hybrid or 16/ 25mm<sup>2</sup> Cu Plain Conc to 35mm<sup>2</sup> Wavecon**

<b>Item</b>	<b>Quantity</b>
Shell 1583	1
Resin	10 litres (2 x 5 litres)
Connector BCNE (Neu/Earth)	1
Connector SSIPC (Phase)	3

### **ADDITIONAL ITEMS FOR EACH JOINT**

Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item numbers (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

## JOINTING PROCEDURE 7.207

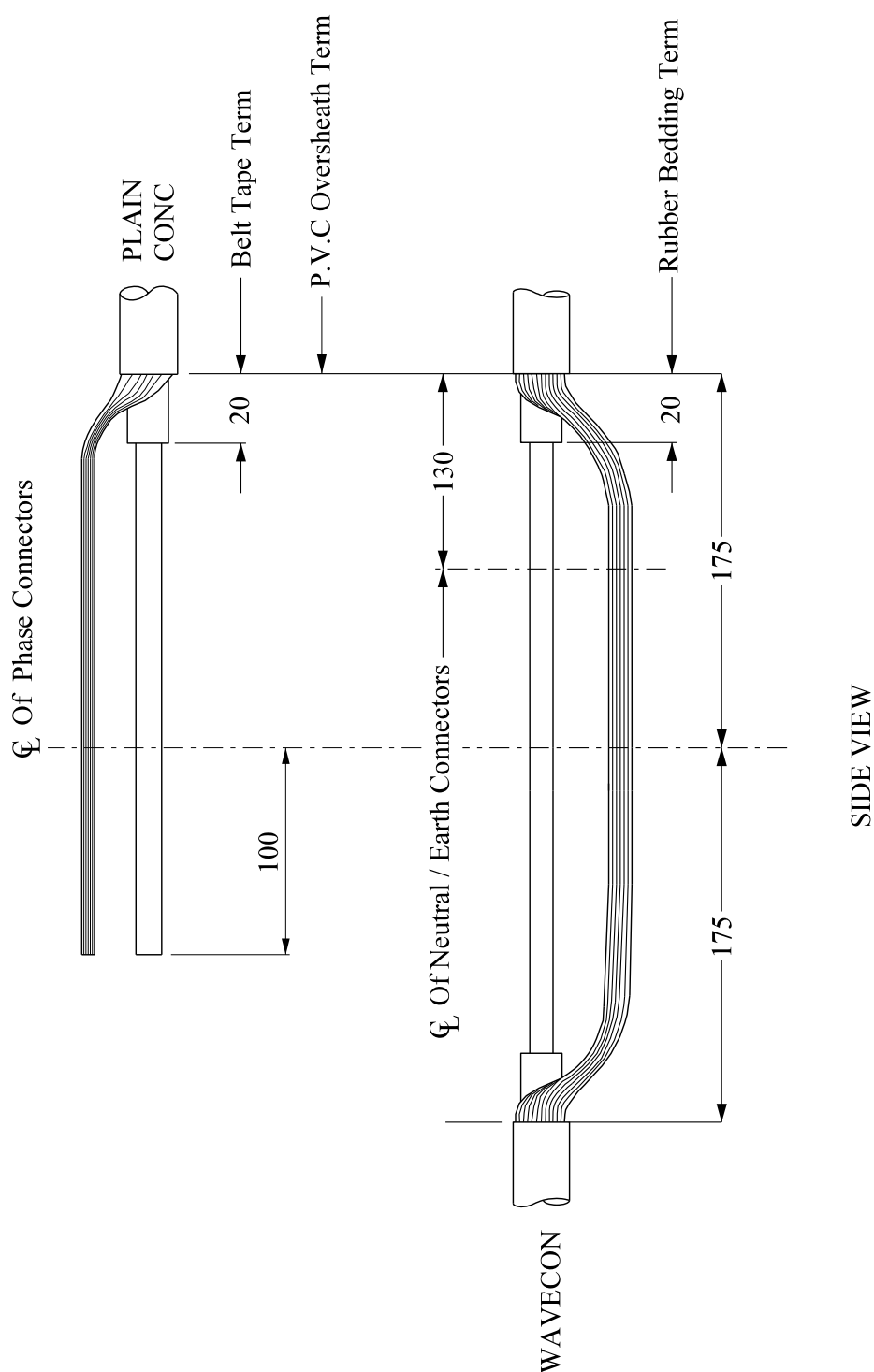
Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.207.1, 7.207.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE (PLAIN CONC) - Preparation</b>	
2. Open and cut cable in accordance with General Requirement	13
3. Prepare neutral/earth wires for jointing	7
<b>MAIN CABLE (WAVECON) – Preparation</b>	
4. Remove PVC oversheath	5
11. Prepare neutral/earth wires for jointing and form into one core	14
6. Remove rubber bedding	8
<b>COMPLETION OF JOINT</b>	
7. Set cores in joint position	22
14. Connect neutral/earth wires	24
9. Apply temporary shrouding	17
10. Make and ensure phase connections are fully insulated	24/25
11. Remove temporary shrouding applied in 9	--
12. Form neutral/earth wires into their final position	--
13. Abrade and build up oversheaths	26
14. Thoroughly degrease the joint	29

## **JOINTING PROCEDURE 7.207 – Continued**

- |     |  |    |
|-----|--|----|
| 15. | Prepare and fit shell, ensuring 15mm clearance | 30 |
| 16. | Mix and pour resin                             | 31 |

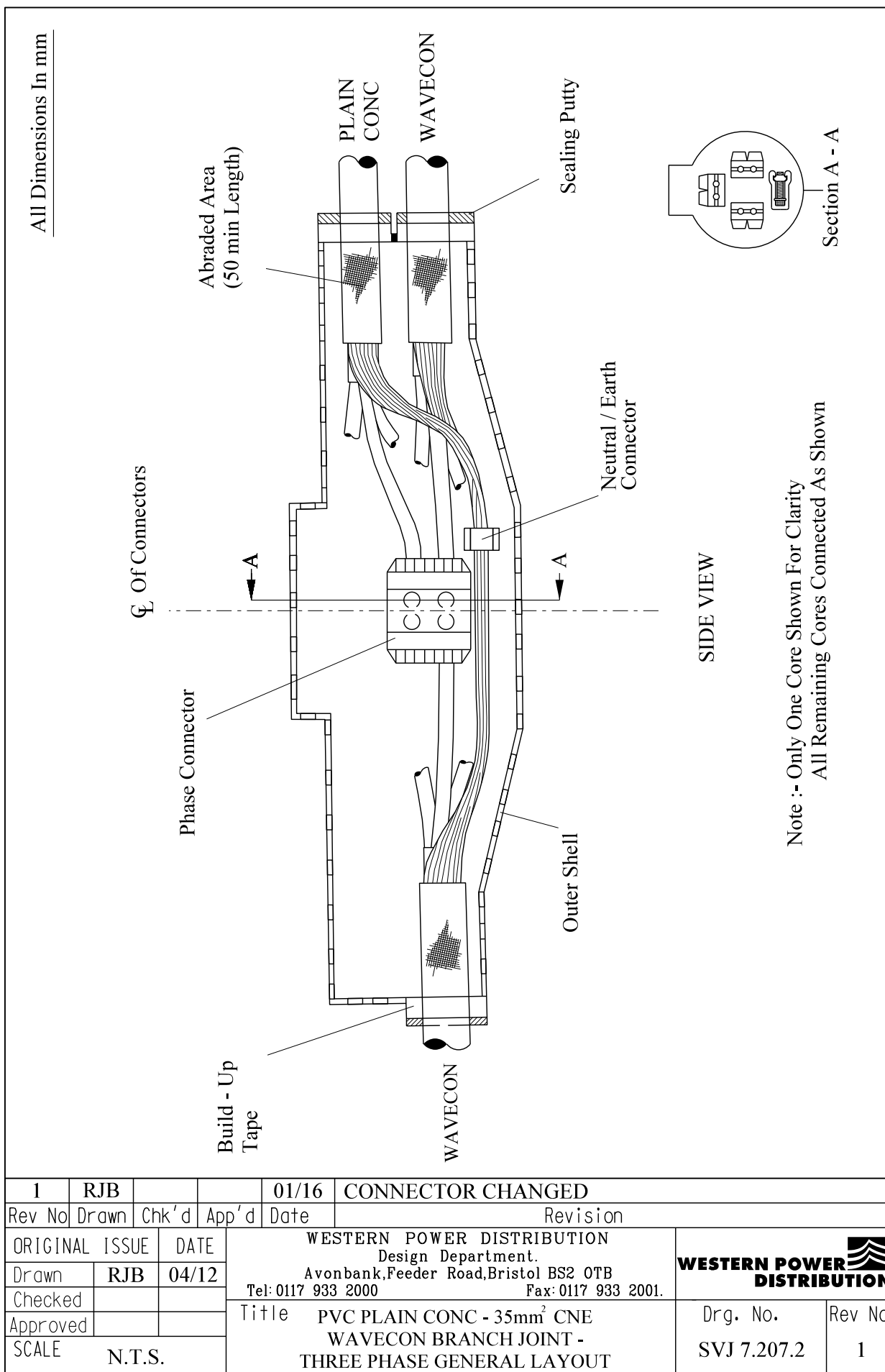


All dimensions in mm



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Drawn	RJB	04/12		Title PVC PLAIN CONC - 35mm <sup>2</sup> CNE WAVECON BRANCH JOINT - THREE PHASE STRIPPING DIMENSIONS	
Checked					
Approved				Drg. No. SVJ 7.207.1	
SCALE N.T.S.				Rev No	

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**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS**

**JOINTING PROCEDURE 7.208**

**PVC SPLIT CONCENTRIC - 35mm<sup>2</sup> CNE WAVECON  
SERVICE CABLE BRANCH JOINT - THREE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**

## **JOINTING PROCEDURE 7.208**

### **MATERIALS LIST**

#### **CABLE SIZES – 25mm<sup>2</sup> Cu Split Conc to 35mm<sup>2</sup> Wavecon**

<b>Item</b>	<b>Quantity</b>
Shell 1583	1
Resin	10 litres (2 x 5 litres)
Connector BCNE (Neu/Earth)	1
Connector SSIPC (Phase)	3

### **ADDITIONAL ITEMS FOR EACH JOINT**

Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item numbers (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

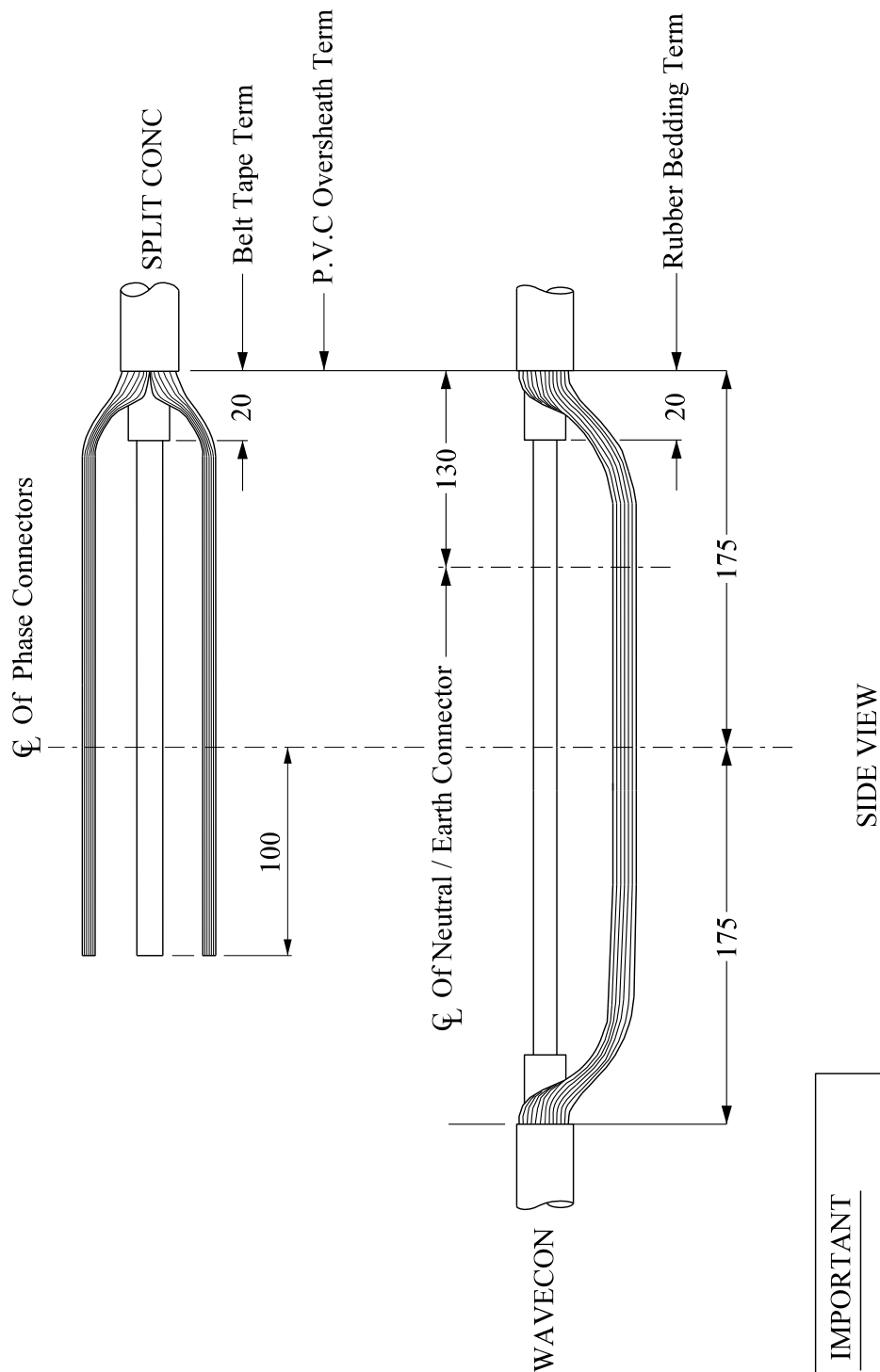
## JOINTING PROCEDURE 7.208

Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.208.1, 7.208.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE (SPLIT CONC) - Preparation</b>	
2. Open and cut cable in accordance with General Requirement	13
3. Prepare neutral/earth wires for jointing	7
<b>MAIN CABLE (WAVECON) – Preparation</b>	
4. Remove PVC oversheath	5
12. Prepare neutral/earth wires for jointing and form into one core	14
6. Remove rubber bedding	8
<b>COMPLETION OF JOINT</b>	
7. Set cores in joint position	22
15. Connect neutral/earth wires	24
9. Apply temporary shrouding	17
10. Make and ensure phase connections are fully insulated	24/25
11. Remove temporary shrouding applied in 9	--
12. Form neutral/earth wires into their final position	--
13. Abrade and build up oversheaths	26
14. Thoroughly degrease the joint	29

### **JOINTING PROCEDURE 7.208 – Continued**

- |     |  |    |
|-----|--|----|
| 15. | Prepare and fit shell, ensuring 15mm clearance | 30 |
| 16. | Mix and pour resin                             | 31 |

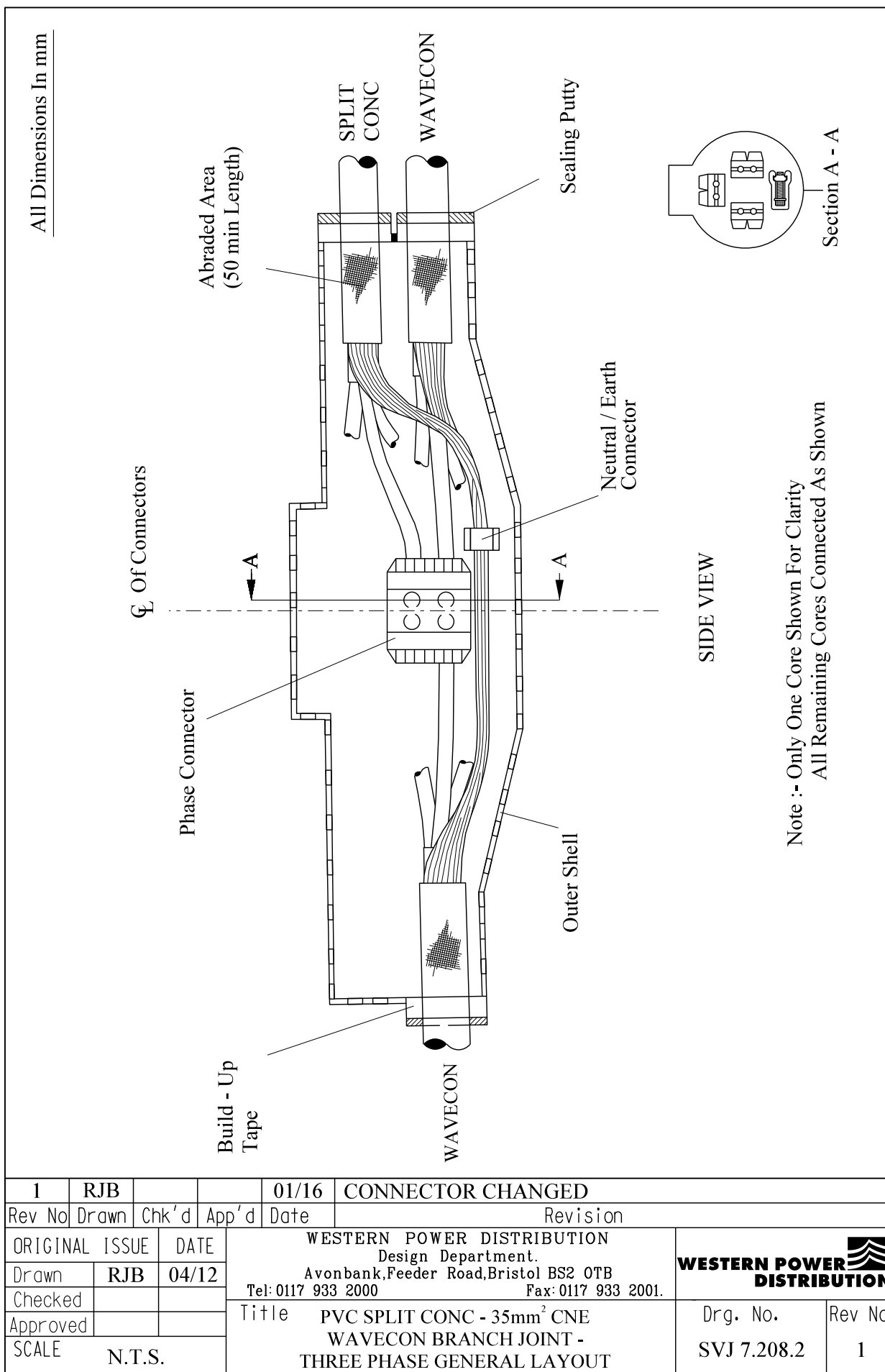
All dimensions in mm



**IMPORTANT**  
Before Making This Joint  
Check With Supervisor That  
Application Is Correct

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Drawn	RJB	04/12	Title PVC SPLIT CONC - 35mm <sup>2</sup> CNE WAVECON BRANCH JOINT - THREE PHASE STRIPPING DIMENSIONS		
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SCALE		N.T.S.		Drg. No. SVJ 7.208.1	
				Rev No	

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**ST: CAØM/4 PROCEDURES FOR MAKING SERVICE CABLE  
BRANCH JOINTS**

**JOINTING PROCEDURE 7.209**

**35mm<sup>2</sup> CNE WAVECON - 35mm<sup>2</sup> CNE WAVECON  
SERVICE CABLE BRANCH JOINT - THREE PHASE**

**This procedure is to be read in conjunction with the appropriate  
General Requirements ST: CAØC Section 6  
of the LV Service Cable Jointing Manual**

## **JOINTING PROCEDURE 7.209**

### **MATERIALS LIST**

#### **CABLE SIZES – 35mm<sup>2</sup> Wavecon to 35mm<sup>2</sup> Wavecon**

<b>Item</b>	<b>Quantity</b>
Shell 1583	1
Resin	10 litres (2 x 5 litres)
Connector BCNE (Neu/Earth)	1
Connector SSIPC (Phase)	3

#### **ADDITIONAL ITEMS FOR EACH JOINT**

Insulation patch  
Black cotton tape  
Sealing putty  
Cable ties  
Shell support  
PVC tape  
Emery cloth  
De-solvit 1000FD  
Workhorse dry wipes  
Cable solvent wipes

**Note: - Individual material item numbers (SHOPS) are to be found in Section 4 of the LV Service Cable Jointing Manual.**

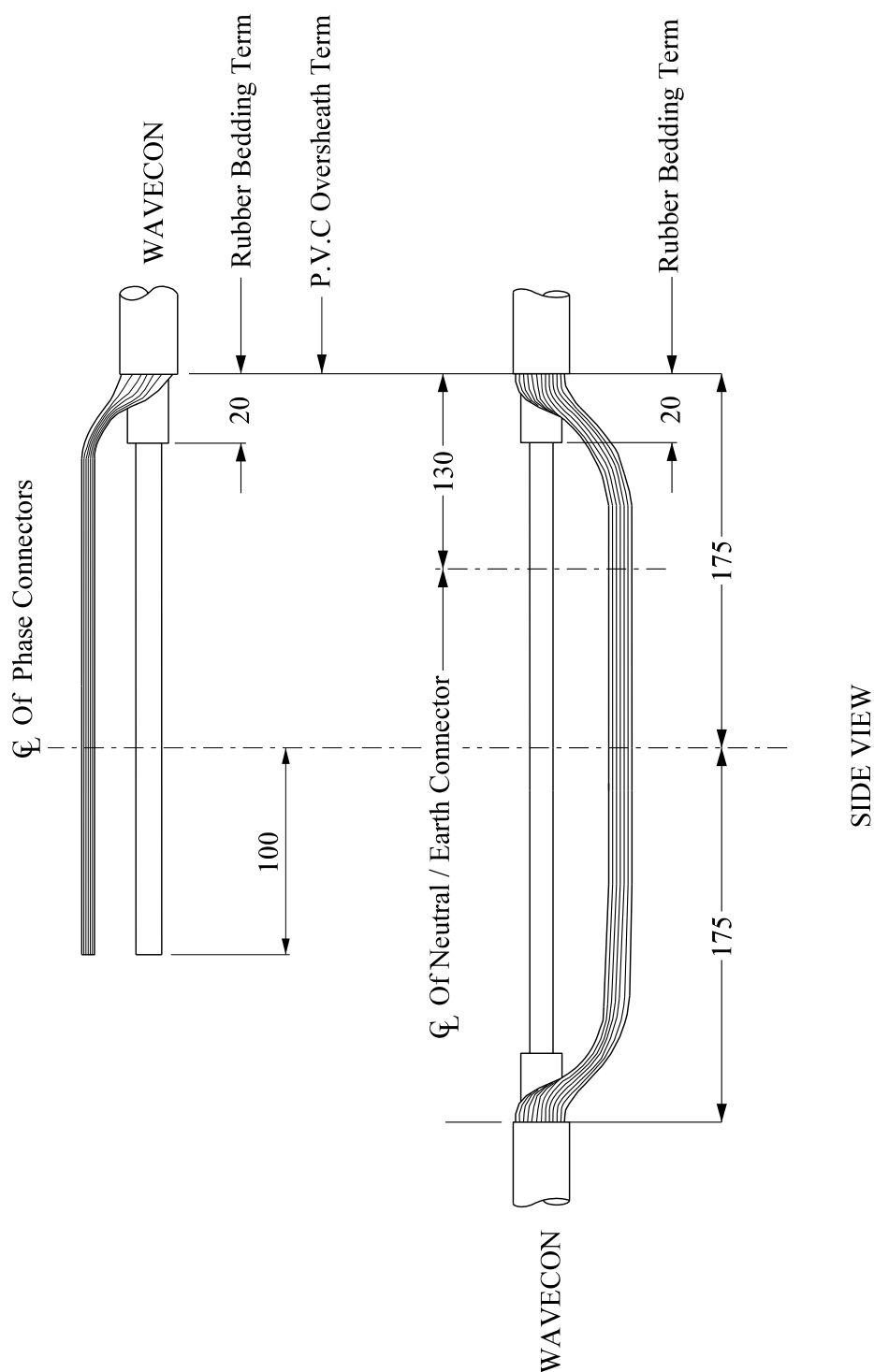
## JOINTING PROCEDURE 7.209

Actions	General Requirements (ST: CAØC)
Refer to Drawings <b>SVJ 7.209.1, 7.209.2</b> whilst undertaking this Jointing Procedure	
1. Set up and mark cables	4
<b>BRANCH CABLE - Preparation</b>	
2. Open and cut cable in accordance with General Requirement 6.14	14
3. Prepare neutral/earth wires for jointing	7
<b>MAIN CABLE – Preparation</b>	
4. Remove PVC oversheath	5
13. Prepare neutral/earth wires for jointing and form into one core	14
6. Remove rubber bedding	8
<b>COMPLETION OF JOINT</b>	
7. Set cores in joint position	22
16. Connect neutral/earth wires	24
9. Apply temporary shrouding	17
10. Make and ensure phase connections are fully insulated	24/25
11. Remove temporary shrouding applied in 9	--
12. Form neutral/earth wires into their final position	--
13. Abrade and build up oversheaths	26
14. Thoroughly degrease the joint	29

## **JOINTING PROCEDURE 7.209 – Continued**

- |     |  |    |
|-----|--|----|
| 15. | Prepare and fit shell, ensuring 15mm clearance | 30 |
| 16. | Mix and pour resin                             | 31 |

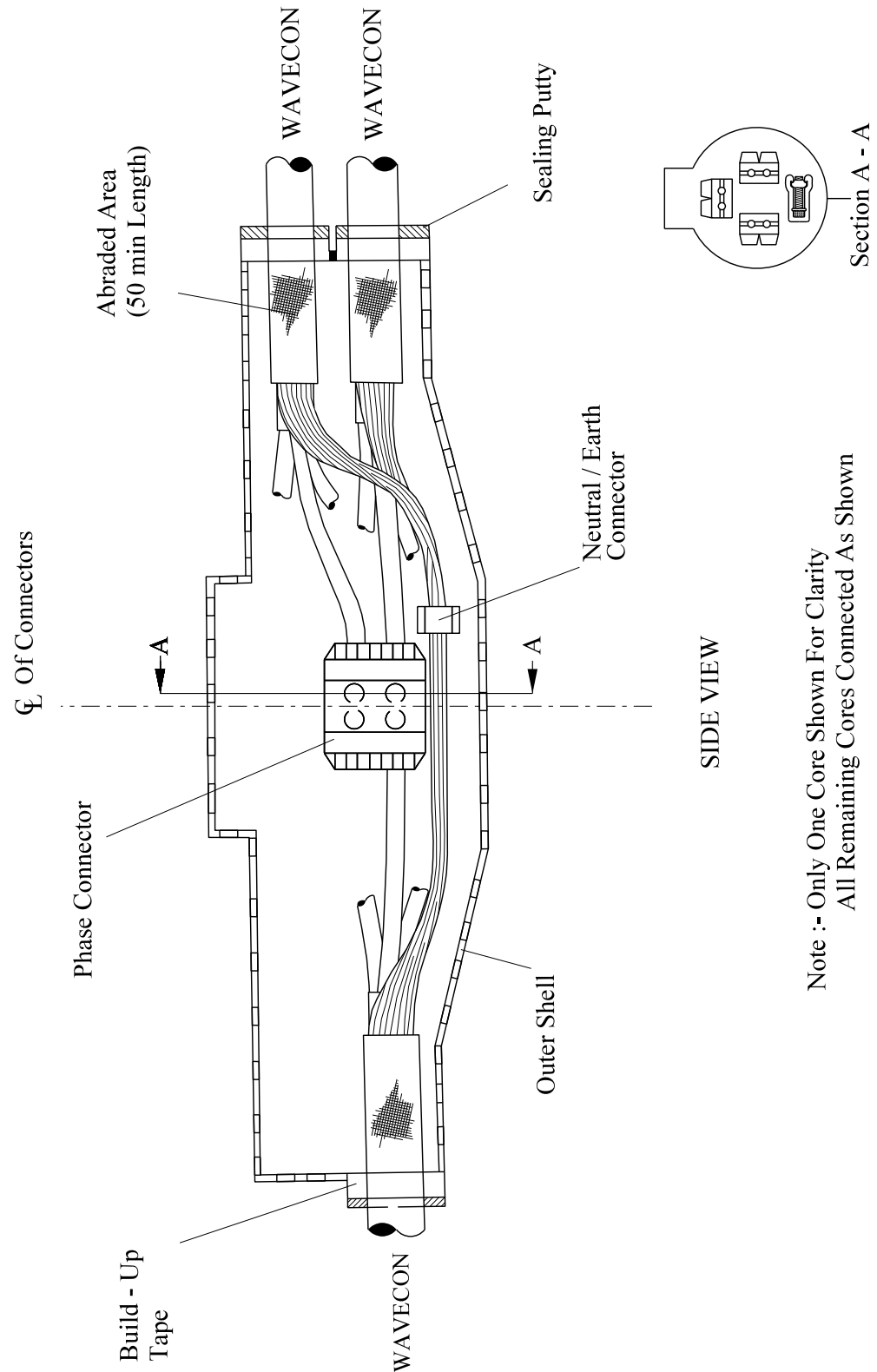
All dimensions in mm




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Drawn	RJB	04/12		WESTERN POWER DISTRIBUTION	
Checked				Title 35mm <sup>2</sup> CNE WAVECON - 35mm <sup>2</sup> CNE WAVECON BRANCH JOINT - THREE PHASE STRIPPING DIMENSIONS	
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All Dimensions In mm



Note :- Only One Core Shown For Clarity  
All Remaining Cores Connected As Shown

1	RJB			01/16	CONNECTOR CHANGED	
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Checked						Rev No 1
Approved						
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## **APPENDIX A**

### **SUPERSEDED DOCUMENTATION**

This Standard Technique supersedes ST:CAØM/3 dated July 2014 which should now be withdrawn.

## **APPENDIX B**

### **ASSOCIATED DOCUMENTATION**

ST:CAØA, ST:CAØB, ST:CAØC, ST:CAØN, ST:CAØS, ST:CAØT, ST:CAØU, ST:CAØV, ST:CAØW, ST:CAØZ.

## **APPENDIX C**

### **IMPACT ON COMPANY POLICY**

None, as this document has just been updated to incorporate all the latest SHOPS numbers and other subtle minor changes.

## **APPENDIX D**

### **IMPLEMENTATION OF POLICY**

This Standard Technique shall be communicated to all relevant WPD engineers and site staff at the next Team Briefing by the Team Manager.

## **APPENDIX E**

### **KEY WORDS**

Branch Joints, Service Cable Branch Joints