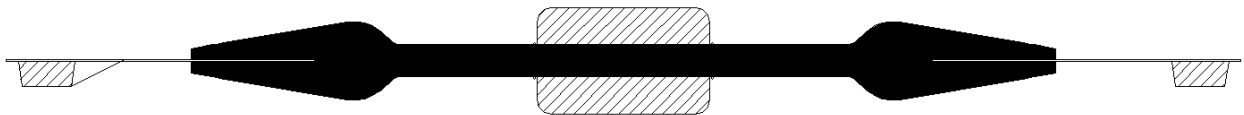


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Joint vulcanisation procedure W9CU-i

This procedure can be used for joint vulcanization of W9 profiles



Workprocedure

WVO number :	WV-110 EN	Date:	11-01-2012
Made by:	HdB,JvS	Revision:	0
Checked:	MdV		
Subject:	Joint vulcanization W9CU-i		
Procedure type:	Method and instruction		

1) Summary:

Vulcanisation of joints is precise work but can be done without problems if this prescription is followed. The joint is made by applying Solution on both ends and applying unvulcanised rubber sheets. The vulcanisation is subsequently done with the use of a mould.

2) Qualification:


A person to make repairs has to be trained or certified by a professional instructor assigned by Trelleborg Bakker B.V. Instructions have to be followed thoroughly and if in doubt the manufacturer/supplier has to be contacted.

3) Materials:

		Material	Ref. documents
Profile	W9CU-i	SBR	966022
Solution	Solution 160-88-00	NR	
Welding rubber	16-8800 calandered	NR	Shelf life welding rubber is 3 months at 0-5°C
Tools	Knife, Sanding machine, Mould device, brush, clamps		
Various	Nylon, cloth(cotton) Petroleum (Naphtha)		




4) Welding procedure




General note: Make sure the working area is dry and clean of dust and dirt Both ends of the profile must be cleaned thoroughly.

1	Cut the profile on length with the right angle. Create an overlap of 100 mm.	
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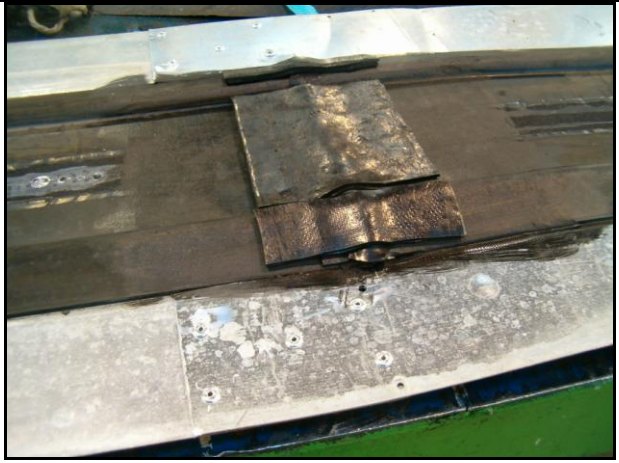


- 2 Cut away 100 mm from one side along the steelstrip so that two pieces of 100 mm steelstirp remain projected.

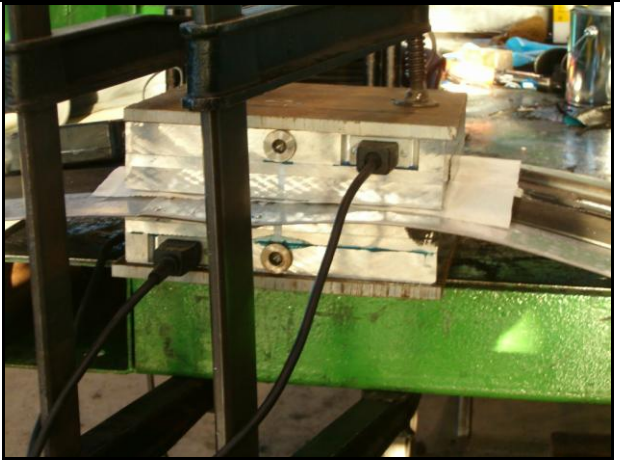




		
3	<p>Cut away 150mm from the sponge rubber rill from both end. The top and the bottom part.</p>	
4	<p>Roughen the ends of the profile as well as 50 mm over the edge from the front. Afterwards remove rubber particles by means available on-site such as an industrial vacuum cleaner. Clean(degreasing) the surface of the profile with a piece of cloth(cotton) and Naptha (petroleum), hydrotreated light).</p>	

<p>5</p> <p>Apply the Solution 160-8800 on the end parts of the profile (previous roughened area). Apply a second layer after 10 min drying time. Make sure the second layer gets to dry 10 minutes as well.</p>	 A person wearing a dark blue long-sleeved shirt is applying a red adhesive from a small container onto a metal profile. The profile is resting on a green workbench with the letters 'WAK' visible on it.
<p>6</p> <p>Apply to one waterstop-end a piece of unvulcanised rubber sheet of 1,5 –2 mm thickness, and cut it into the shape of the profile. A piece of unvulcanised rubber must also be applied to the steel edges treated with adhesive, Close the two ends firmly together.</p>	  The top image shows a person's hand placing a black rubber sheet onto a metal profile on a green workbench. The bottom image shows a person using scissors to cut a piece of black rubber sheet on a blue workbench.

	
<p>7 Clamp both ends of the the steel stips en drill in the overlap on both sides 5 holes dia 3mm. Keep a distance of 20 mm from the sides or otherwise the mould will not fit. Rivets or pop-nails are applied</p>	 

<p>8</p>	<p>Fill in the joint gap with the small rubber strips, with the help of the point of a pair of scissors. Support the bottom of the joint by hand and lift this a little so that the joint opens up (overflow slightly) Now apply the strip of unvulcanised rubber, width 20 mm, over the joint gap on the top and bottom</p>	
<p>9</p>	<p>Check the mould for inconsistencies</p>	
<p>10</p>	<p>Apply on the top and bottom of the profile a piece of nylon to exclude air inclusions. Use protective gloves. Place the 4 clamps on the corners of the mould. Switch on and vulcanice at approx 150° C for 60 minutes.</p> <p>After approx. 10 minutes the clamps should be fastened again due to pressure decrease owing to rubber-flow. After 45 minutes check wether joint is completely vulcanised (flow coming out between steelstrips should be elastic).</p> <p>To prevent loss of heat cover mould with piece of blanket or similar.</p>	

		
11	<p>Switch off and cool for 10 minutes. Remove clamps and take away the mould. Be carefull mould plates are very hot. The joint is made.</p>	
12	<p>After vulcanization switch off and cool for 10 minutes Remove clamps and take away the mould.</p> <p>Cut cellrubber to size (centerpiece and injection profiles). Glue them using CA glue</p>	
13	<p>Check the weld for flowerrors, porosity and bladders A quick reference check to ascertain full vulcanisation is to check the consistency of the welded part with the normal profile. This can be done by pressing with a pointy object (not sharp) such as a pen. If vulcanisation is done properly no permanent deformation should be noticed.</p>	