

Tech Tips 027

V-weld Solution for Missing Waterstop at Wall Joint

by Allison J. Nuño

Have you ever faced the challenge of having to add a vertical wall joint due to an error, unintended construction joint, or unforeseen circumstances? It can be difficult in the field since edge welding is typically not permitted. For such cases, you can use a ‘v-shaped’ cutout that requires welding. This V-weld will align the ribs and bulbs, and the weld is stronger due to the increased area.

You can use our custom-made v-weld waterstop splicing iron (*available for sale or rental at J P Specialties, Inc.*) to accomplish this. This tool will simultaneously melt both sides of the ‘v-shaped’ cutout on the already-installed waterstop (female) and the pointed waterstop at the new joint (male). Use the iron as a template to make your cuts. The better the angle and quality of the cuts, the better the overall weld will be.

According to our [Earth Shield® Master Specification](#), the correct temperature (PVC — 350°F to 380°F) (TPV — 410°F to 430°F) shall be used to melt the plastic sufficiently without charring it. Achieve a 3/16” (minimum) bead melt (extrudate) on each side of the waterstop. You can perform a deeper melt before pulling the iron away from the weld — this ensures ample extrudate at the bottom of the ‘v’.

This solution achieves a quality weld that shows no signs of separation, holes, or other imperfections when cooled. It should maintain a sharp angle when bent by hand and not tear at the weld.

