

## Work Instructions for Splicing V-Seal System

### Responsibility

- It is the responsibility of installer to understand all of the requirements of this document before attempting to install the V-SEAL system.
  - Failure to perform any of the steps outlined in this document will result in underperformance or failure of the V-SEAL product.
  - Failure to perform any of the steps outlined in this document shall void any warranties, either expressed or implied, with regard to the V-SEAL system.
- When possible, a continuous joint seal is highly recommended since spliced joints are subject to leaking over time. Splicing methods are provided as it is understood that construction schedules and conditions may require the use of a splice.
- It is the responsibility of The D.S. Brown Company to provide written instructions with regard to the proper installation and handling of the V-SEAL system.
- It is the responsibility of The D.S. Brown Company to provide technical support, training, and quality control testing as requested by the installer, contractor, or owner of the project.
  - Technical support, training, and quality control testing is available for a fee.

### Product Description

- The seal component is an elastomeric diaphragm supplied in a continuous length. It is available in two models: V-300 for up to a 3 inch movement rating, or V-400 for up to a 5 inch movement rating.
- The conditioning agent is a solvent based conditioner that activates the surface of the seal to create a bond with the epoxy bonding agent. It is supplied in 1-quart bottles.

- The epoxy bonding agent is supplied in 600mL dual cartridges. One cartridge of epoxy is capable of bonding 6 joint feet of seal.
  - Mixing tip for dual cartridges is included with the shipment.
- Closed cell polyethylene backer rod is included for setting proper joint depth for the V-SEAL system.
  - Backer rod diameter should be slightly larger than joint opening.
- The V-300 sealing system has the option of using the V-Connect splice. When provided, the V-Connect splice kit contains the following:
  - V-Connect splicing element
  - Silaprene M6325 adhesive

### Product Safety

- The epoxy bonding agent is corrosive. Please review each component's SDS before installation to fully understand the safety concerns related to this system. Failure to do so could result in serious injury or death.
- The following guidelines are recommendations consistent with the SDS literature. These recommendations are not intended to supersede or replace any existing requirements set forth by local laws or policies.
  - Use in a well-ventilated area, using good industrial hygiene practices. Avoid contact with eyes, skin, and clothing and wear proper PPE.
  - Personal Protective Equipment (PPE)
    - Corrosive-resistant chemical gloves (e.g., nitrile)
    - Eye protection consisting of safety glasses with side shields or tightly sealed goggles.
    - Skin protection consisting of impervious clothing, including but not limited to the use of an apron. Use long sleeves at a minimum.)
  - Workers not wearing the correct PPE should not enter the application area.

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- In the event of an over-exposure to the product, see section 4 of the SDS for First Aid Measures.

**Material Storage**

- The epoxy bonding agent and conditioner should be stored in a dry environment within a temperature range of 60oF to 80oF. Extremes of temperature beyond this range may result in crystallization or polymerization of the materials and render them unsuitable for use.
- It is recommended that the epoxy bonding agent be used within one year of manufacture. Beyond one year, the material should be checked to ensure suitability for the application.

**Equipment**

- Equipment requirements for the installation of the V-SEAL system are as follows:
  - Wire brush
  - Sandblaster
  - Dual cartridge applicator gun, 600mL
  - Rags
  - Acetone
  - Duct tape or other suitable masking material
  - Caulking spatula
  - Sharp knife or scissors
  - Straight edge
  - Protractor
  - Aron Alpha high strength adhesive.
  - Sika 1A or Sika 15LM sealant.
  - Caulk gun for 10 oz. tubes (when using V-Connect)

**Installation**

- Before starting installation take time to ensure that all materials are available and ready for use, including an adequate amount of personnel to complete the installation.
- Identify locations for splices and clean the area before making the splice.
- FOR V-300 SPLICES USING V-CONNECT
  - Remove 2 inches of each lug from the ends of the seals to be spliced as shown in Fig. 1.
  - Clean the ends of the seals and the V-Connect with acetone.
  - Using a standard caulk gun, apply a ½" (min.) bead of Silaprene adhesive inside the seal cavity of the V-Connect around the perimeter as shown in Fig. 1.
  - Insert the end of the seal into the V-Connect, pushing it all the way in.
  - After inserting the seal, complete the splice by inserting the tip of the Silaprene tube into the V-Connect element between the top surface of the seal and the V-Connect and applying a thick bead of Silaprene.
  - Firmly press the V-Connect to ensure that full contact with the adhesive is made.
  - Clean excess adhesive off the outside of the V-Connect. Make sure no adhesive is in the glue grooves of the seal.

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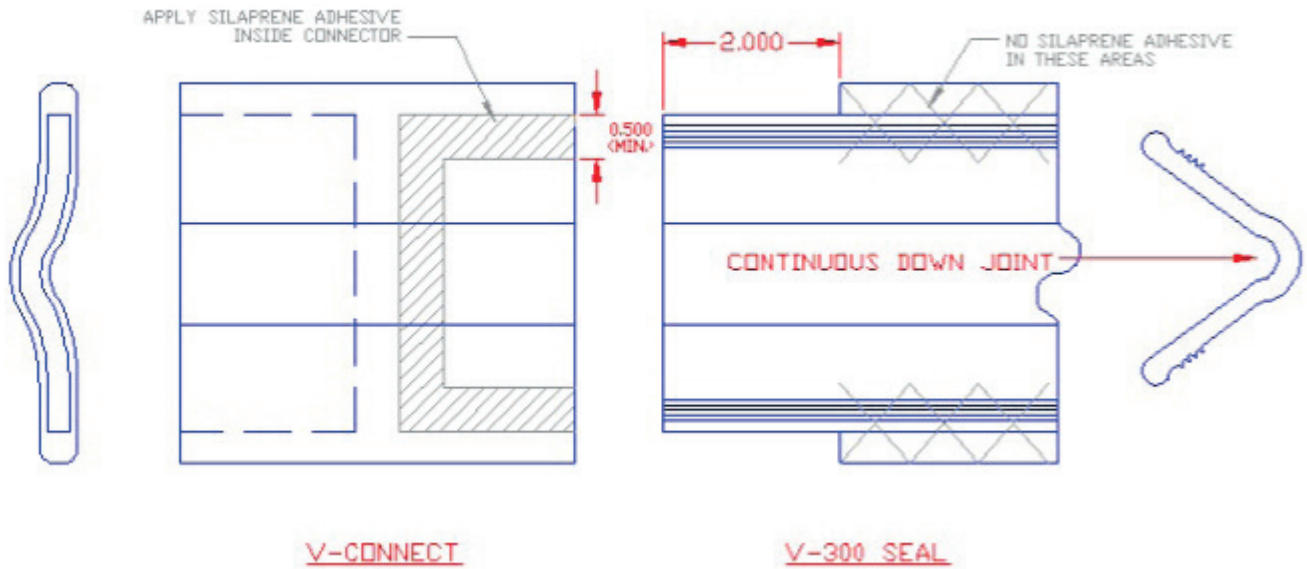


Fig. 1 – V-Connect and seal to be spliced.

- SPLICING V-SEAL WITHOUT V-CONNECT
- Remove 4 – 6 inches of each lug from what will be the top element in the splice. This will define the splice area.
- FOR V-400 ONLY – Cut a v-shaped notch in the center of the seal approximately ½ inch wide by 1 inch long.
- Clean the surfaces to be mated with acetone.
- Apply Aron Alpha high strength adhesive to the surface of the bottom piece of the splice.
  - The entire area should be covered at least 50% and uniform throughout the area to be bonded.

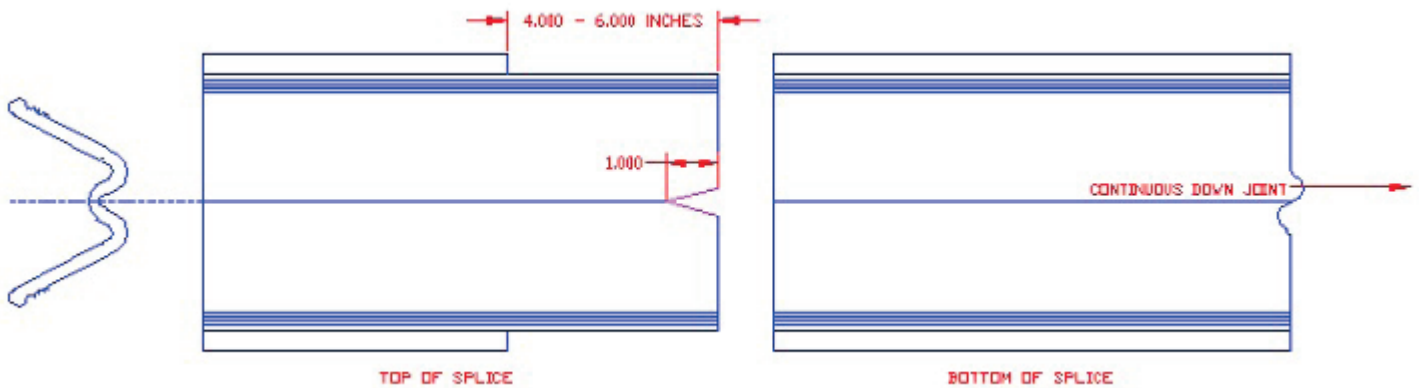
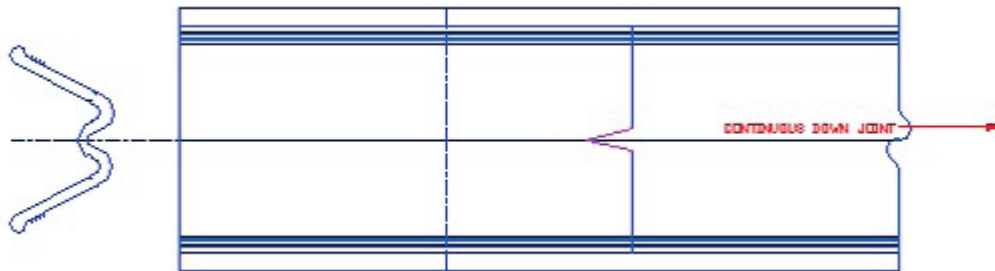


Fig. 2 – Both halves of splice before bonding

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- Line up the lugs of both pieces as shown in Fig. 3 and press the two parts together.
  - Hold pressure on the splice until the adhesive starts to cure.
- A small amount of Aron Alpha should squeeze out. Use an acetone soaked rag to clean off any excess.



**Fig. 3 – Glued Splice**

- Caulk around edges of splice and into top “V” to complete splice.
  - Do not get caulk on the glue grooves.
  - Use the tip of the caulk tube to inject caulk into the “V”, pushing material into the splice.
- Install seal per V-SEAL standard installation instructions (VSeal.001).

### Clean Up

- Clean all uncured epoxy off of the top portion of the seal.
- Uncured epoxy is removed as you would spilled resin. Scrape as much material as you can from the surface using a stiff metal or plastic scraper. Clean the residue with lacquer thinner, acetone, or alcohol placed on a clean rag.
  - Follow safety warnings on solvents, and provide adequate ventilation.
- Remove all masking materials.
- Unused epoxy and conditioner should be disposed of according to local rules & regulations.
  - Consult SDS for proper disposal methods.