

Expansion Joint Systems

Work Instructions for using the Strip Seal Removal Kit

Responsibility

- It is the responsibility of the installer to understand all of the requirements of this document before attempting to remove the strip seal.
 - Failure to perform any of the steps outlined in this document will result in underperformance or failure of the new seal to be installed.
 - Failure to perform any of the steps outlined in this document shall void any warranties, either expressed or implied, with regard to the strip seal system.
- It is the responsibility of The D.S. Brown Company to provide written instructions on how to utilize the tools in the Strip Seal Removal Kit.
- It is the responsibility of The D.S. Brown Company to provide technical support and training as requested by the installer, contractor, or owner of the project. (Technical support and training are available for a fee.)
- The purpose of this kit is to assist in the removal of the existing strip seal. Results and performance of the kit will vary based on the age and condition of the existing strip seal.

Product Description

- The Strip Seal Removal Kit consists of the following components:

1. Oscillating Tool
2. Oscillating Blades
3. Grabber Tool
4. Air Hammer with quick change retainer
5. Clean Out Tool Bar
6. Clean Out Tool Head
7. Button Cutter Inserts
8. Insert Screws
9. Insert Screw Allen Wrench
10. Kit Bag
11. Small Parts Container

- Other tools that may be required, but are not in the kit:

- Screwdriver
- Sandblasting Equipment
- Pry Bar
- Air Compressor
- Hammer
- Hand Saw
- Knife



Product Safety

The following guidelines are recommendations and are not intended to supersede or replace any existing requirements set forth by individual tool manufacturers, local laws, or policies. It shall be the responsibility of the user to review each tool's instruction manual found on the manufacturer's website. Failure to do so could result in serious injury or death.

Personal Protective Equipment (PPE)

- Protective gloves
- Eye protection consisting of safety glasses with side shields.
- Proper clothing, including but not limited to the use of long sleeves at a minimum.
- Workers not wearing the correct PPE should not enter the work area.

Storage

Store the kit in a dry area. Moisture can damage the tools in the Strip Seal Removal Kit.

Removal

- Before starting strip seal removal take time to ensure that all materials are available and ready for use, including an adequate amount of personnel to complete the task.
- Identify the seal to be removed and ensure the proper traffic control is in place.

Step 1



Figure 1 – Cut the existing seal down the middle of the joint opening.

- Use the Oscillating Tool (1), knife, or hand saw to cut the existing strip seal down the middle of the joint where the seal is being replaced (See Figure 1). This will cut the “V” shape of the seal in half along the valley of the “V”.

Step 2



Figure 2a – Cut the existing seal down the edge of the rail.



Figure 2b – Cut roughly 1'- 2' of existing seal.

- Use the Oscillating Tool (1) to cut approximately 1'-2' of existing seal inside of the rail cavity. The procedure should cut this portion of the seal, which snapped inside of the rail cavity (the seal head), in half. This relieves the pressure of the seal head inside of the rail cavity. See Figures 2a and 2b.

Step 3



Figure 3a – Grabber Tool (3)



Figure 3b – Pull seal at roughly 45° away from rail.

- Fold one half of the seal, in the area where you performed Step 2, up above the roadway surface.
- Using the Grabber Tool (3) latch onto as much of the seal rolled above the roadway surface as possible (Figure 3a).
- Pull the Grabber from the rail at a 45° angle using a chain and skid steer, truck, or other available equipment (Figure 3b).
- If the seal head comes out of the rail, reset the Grabber so that it hooks on to the head of the seal (Figure 3c). If the seal head does not come out, use screwdrivers and a pry bar to get the head of the seal out of the rail.
- Depending on the condition of the seal the Grabber may need to be reset every few feet. If the seal tears, try resetting the Grabber more frequently, adjusting the angle in which the Grabber pulls, and/or getting more of the seal head in the Grabber.
- Repeat Steps 2 and 3, as needed, on both sides of the joint rail until the majority of the seal has been removed from the rail cavity.



Figure 3c – Set Grabber on seal head.

Step 4

- Assemble the Clean Out Tool. Slide the Clean Out Tool Head (6) onto the Clean Out Tool Bar (5), aligning the slot in the head with the pin on the bar (Figures 4a and 4b). Use the provided lock nut to fasten the Clean Out Tool Head to the bar.
Note: The clean out is only compatible with DS Brown's L2 gland shape. In cases where A2R seal is used, if steps 1-3 do not clean out the rail cavity, then sand blasting will be required.
- Connect the Clean Out Tool Bar (5) to the Air Hammer (4) as shown in Figure 4c. Connect air hammer to the air compressor and use 90-110 PSI to operate.
- Insert the top portion of the Clean Out Tool Head into the top portion of the rail cavity first (Figure 4d). Then, snap the Clean Out Tool into the bottom portion of the rail (Figure 4e). Depending on the size of the rail, this may take some light force.
- The Clean Out Tool is used to remove any leftover small pieces of seal and adhesive. Run it up and down the rail cavity using the Air Hammer and tipping the bar, as needed, to clean the top and bottom portion of the rail cavity. Once complete, inspect the rail cavity for any remaining debris. If the debris cannot be removed with the Clean Out Tool, sandblasting of the rail is required.
- Repeat Steps 2-4 on both sides of the joint.

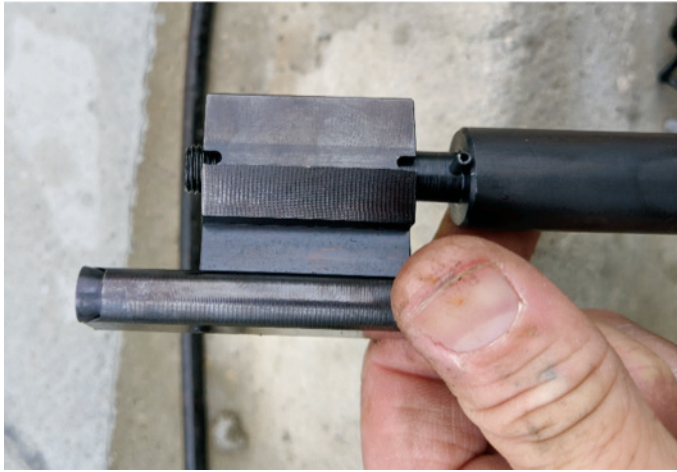


Figure 4a – Clean Out Tool Head (6) slides onto Clean Out Tool Bar (5).

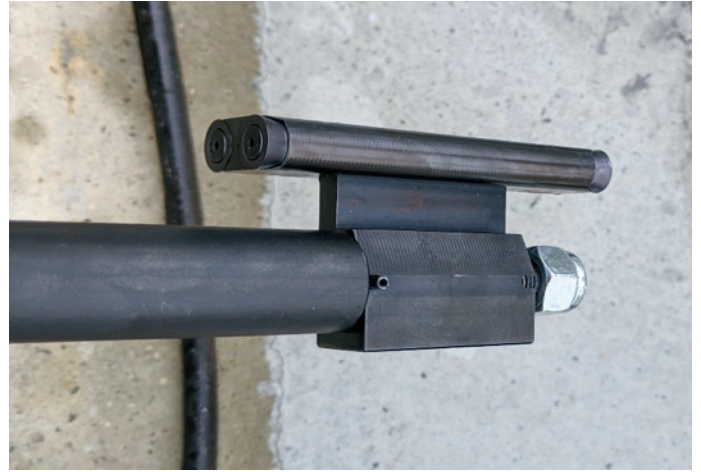


Figure 4b – Clean Out Tool is assembled (5 & 6).



Figure 4c – The Clean Out Tool Head (6), Clean Out Tool Bar (5), and Air Hammer (4) is assembled.



Figure 4d



Figure 4e

Maintenance

- If the inserts on the Clean Out Tool Head become dull, replace them. Use the Insert Screw Allen Wrench (9) to remove the old inserts. In the Small Parts Container (11), find new Insert Screws (8) and Inserts (7) and then replace the existing inserts and screws as needed.

Clean Up

- Place all tools into the Strip Seal Removal Kit Bag (10).
- Store the kit in a dry location.
- Ensure all strip seal rail cavities are free of debris. Even small portions of old rubber or glue left in the cavity can cause the new seal to not seat properly and may hamper its performance.
- You are now ready to install your new strip seal. See the installation instructions on the D.S. Brown website for proper installation methods.