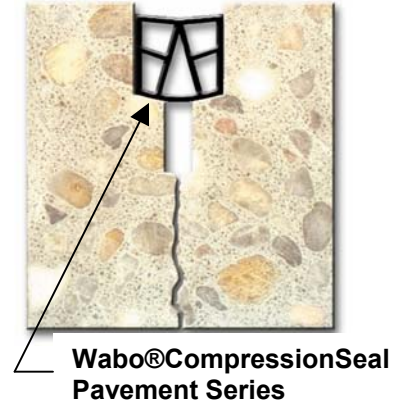


Installation Instructions for Preformed Elastomeric Joint Seal for Highway and Airfield Applications

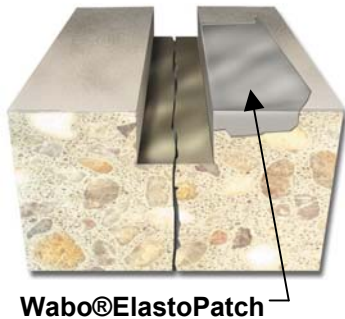
A. General

The work shall consist of furnishing a preformed elastomeric joint seal in accordance with the details shown on the plans and the requirements of the specifications. Placement of the joint seal shall consist of proper joint preparations, material and application of materials. The preformed seal is delivered in the longest practical continuous length. A lubricant-adhesive will be shipped in manufacturers labeled containers. The lubricant-adhesive shall be kept from freezing. Placement of the preformed joint seal shall be installed utilizing the Wabo®Installer



B. Joint Preparation

To form the joint, a two-stage sawing operation is performed. The first saw cut is designed for control cracking. The second saw-cut will create the proper shape for the Wabo®CompressionSeal. The saw-cut is made using a water-cooled diamond blade saw capable of holding a tolerance of $\pm 1/16$ inch. The saw-cut is inspected for proper width, depth and the face of the joint must be at 90 degrees to the surface of the pavement. If spalling occurs due to the sawing operation, it must be repaired prior to seal installation. We recommend the Wabo®ElastoPatch for this repair. The longitudinal saw-cut operation is not performed until the pavement is determined to be level from one slab to the next. If the horizontal deviation is not consistent the installation machines may experience difficulty installing the seal.



Once the secondary saw-cut is made, the joint is pressure washed with clean water and blown out with compressed air. Sandblasting will be needed if called for in the specification of the project.

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C. Wabo®Installer Set-up Directions

Using the latest design in machines to install Wabo® Compression Seal pavement joint seal will allow the user to begin installing the seal within 30 minutes.

1. Adjust the height of the tapered compression bearing from the pavement surface by setting the installer over the joint and gently engage the lowering lever (A). The compression bearings should be adjusted as close to the joint edge as possible without making contact with the edge. The bearings are raised or lowered by loosening the setscrew (B) and sliding the shaft that holds the bearings.
2. Lay installer back on the handle so you may access the bottom of the machine.
3. Adjust the opening between the two tapered bearings to be slightly less ($1/16$ ") than the joint width. Loosen the two shoulder bolts at the front of the machine (C) and move the bearings to the proper width using the adjustment screws (D). Retighten the two shoulder bolts. It is important when making this adjustment to keep the discharge blade absolutely centered between the compression bearings.
4. Adjust the exposure of the discharge blade to $1/2$ " below the lower edge of the bearings. This is only a starting point. Fine adjustments of the depth of the discharge blade will need to be made once installation begins. Adjust the discharge blade exposure by turning the threaded rods (E).
5. Adjust the location of the discharge blade (front to back) within the bearings. The optimum location of the front lower section of the discharge blade (where contact with the Wabo®CompressionSeal is made) is directly in the middle of the compression bearings. To make this adjustment loosen the bolts (F) on both sides and slide the discharge blade assembly forward or back. Retighten bolts.
6. Disengage the installer and bring it upright gently.



Wabo®Installer

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D. Installation Directions

Note: Install the longitudinal seals first, allow lubricant-adhesive to dry, then cut the seal out of the intersection with a sharp razor blade knife. The transverse seals are installed through the cut to form a tight intersection. The transverse seal shall be installed in one continuous length.

1. Unroll the Wabo®CompressionSeal along the joint to be sealed. Keep the seal clean and free from dirt.
2. Apply the lubricant adhesive liberally on both sides of the joint top edge. This is usually applied using a small pump and wand designed for this application
3. Start the neoprene sealant into the joint using a blunt screwdriver for the first 6 inches.
4. Move the installation machine over the installed neoprene seal and engage the machine by lowering the lever on the handle.
5. One operator will hold the neoprene seal over the joint ahead of the machine while the second operator will push the machine across the pavement keeping the machine centered over the joint. It is important that the operator holding the sealant does not pull/elongate the neoprene seal. It should be held only taut enough to eliminate any slack in the sealant.
6. At the end of the joint the machine will be disengaged using the lever on the handle. The machine can now be safely moved to the next joint.
7. The depth of the seal shall be measured and the discharge blade exposure adjusted to meet the specification. (see C4). Typically the seal should be 3/16 inch below the surface of the pavement.

E. Inspection

1. Elongation (stretch) of the neoprene seal shall be measured on the first 5 joints installed and then once every 20 joints thereafter. The elongation is measured by laying the neoprene sealant along the joint and cutting the seal to the exact length of the joint. The cut piece of neoprene is installed and the excess material at the end of the joint is measured and divided by the original length of the joint. The calculation will give you the percentage stretch, it shall be no greater than the specification allows. Typically the stretch specification is 3% or less with 5% or less on small seals (7/16" – 11/16")



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E. Inspection

2. Proper depth of the seal is very important. If the seal is too deep, the joint will gather incompressible material and spall the concrete. If the seal is too shallow, the seal may receive abrasive wear from tire contact or be pulled out by snowplows. Therefore, it is recommended that the Wabo®CompressionSeal be recessed 3/16 inch from the surface of the pavement $\pm 1/16$ inch. When beveled joints are required, the seal shall be 1/16 to 3/16 inch below the bottom edge of the bevel.
3. Visual inspection for twists, pop-ups, cuts and separation of butt joints shall be performed. A rule of thumb is any situation that causes the top outer edge of the seal from making contact with the face of the joint is unacceptable and must be repaired.