

Galvashield® XP Product Line

Installation Instructions

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The Galvashield® XP Product Line is designed to mitigate corrosion of reinforcing steel in concrete. In concrete restoration, Galvashield® XP anodes are used in locations where an interface between the new repair mortar/concrete and the existing chloride contaminated or carbonated concrete creates a high potential for future corrosion (for more information, refer to “Galvashield® Theory” and “Corrosion Management Strategies”). Galvashield® XP anodes are simply tied to the existing reinforcing steel along this interface or around the perimeter of the repair area or on a grid within the repair area to protect a second layer of steel if necessary.

The anodes should be installed as close as practical to the edge of the repair area (preferably within 4 in. or 100 mm) while still providing sufficient clearance for the anode to be completely surrounded by the repair mix. Anode spacing shall be as specified by the designer. For additional information, refer to the Galvashield® XP Product Line data sheet or contact Vector Corrosion Technologies.

Installation Procedure

1. As in standard concrete repairs, all old/loose concrete should be removed from around and behind the steel reinforcement inside the repair area in accordance with good concrete repair practice. Provide sufficient clearance between the anode and the substrate concrete (minimum of 3/4 in. [19 mm] or 1/4 in. [6 mm] larger than the biggest aggregate in the repair material, whichever is greater).
2. The exposed rebar in the repair area shall be thoroughly cleaned to remove all residual concrete and rust residue to facilitate a good electrical connection where anodes will be attached. Prior to installation, electrical continuity of the rebar within the repair area should be confirmed with the use of an appropriate meter.

Note: When checking electrical continuity DC resistance of 1 ohm or a potential difference of 1 mV or less is acceptable.

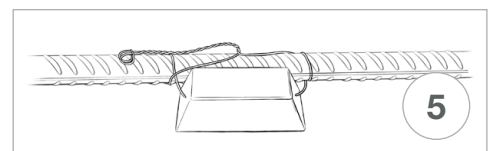
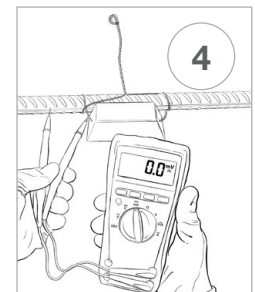
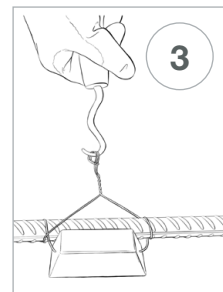
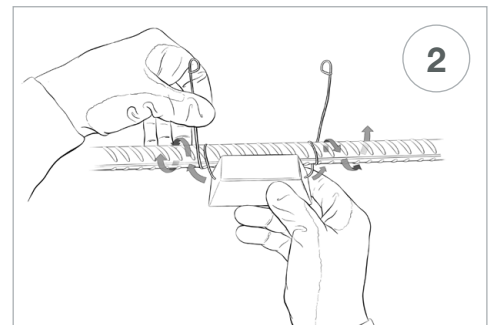
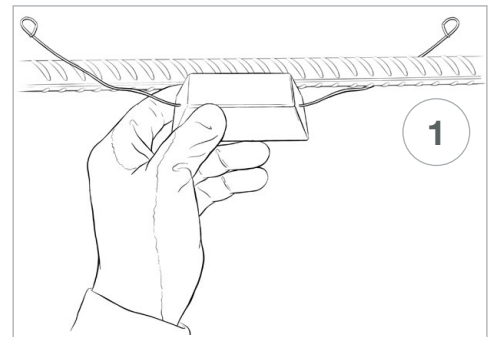
3. Securely fasten anode in place with the attached tie wire and wrap the tie wires around the clean reinforcing steel at least one full turn in the opposite directions and bring the two free ends together and twist tight. The minimum cover of the repair material over the anodes should be 3/4 in (20 mm). Galvashield® XP2 and XP4

anodes with the BarFit™ groove and Galvashield® XPT anodes are placed along side the steel.

4. Once installed, electrical continuity between the anode tie wires and the rebar should be confirmed using an appropriate meter. (Maximum DC resistance of 1 ohm or potential difference of 1mV).

5. Repair material must have a resistivity below 50,000 ohm•cm. Products with significant polymer modification and/or silica fume content may not be suitable. Similarly, if bonding agents are used, they should have suitable conductivity. Insulating materials should not be used. If higher resistance repair materials are to be used, anodes should be installed with Galvashield Embedding Mortar (contact Vector for further details).

Note: If rebar coatings are to be used, care should be taken to ensure the anode and tie wires do not become coated or the connection between the anode tie wires and the rebar is not lost. Complete the repair following normal concrete repair procedures, taking care not to create any voids around the anode. Do not soak the anode units for greater than 20 minutes.



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Storage Instructions

Store in dry conditions in the original unopened box. Avoid extremes of temperature and humidity. Units should be installed within two years.

Health and Safety

As with all cement-based materials, contact with moisture can release alkalis which may be harmful to exposed skin. Galvashield® anode units and Galvashield® Embedding Mortar should be handled with suitable gloves and other personal protective equipment in accordance with standard procedures for handling cementitious materials. Additional safety information is included in the Safety Data Sheet.

Related Documents

A range of related documents are available including installation instructions, guideline specifications, project histories, applications, and SDS. For more information, contact Vector Corrosion Technologies.

About Vector

Vector Corrosion Technologies takes pride in offering technically advanced, cost effective corrosion protection solutions to extend the service life and improve the durability of concrete and masonry structures around the world. Vector has earned numerous project awards and patents for product innovation and is committed to a safe, healthy and sustainable environment.

For additional information on concrete preservation and sustainability, visit **WeSaveStructures.Info**.

For additional information or technical support, please contact any Vector office or our extensive network of international distributors.

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Vector products are provided with a standard limited warranty against defects for a period of 12 months from the date of sale. To obtain a complete copy of Vector's limited warranty, contact Vector or visit www.vector-corrosion.com/warranty.pdf. Contact Vector for information on extended warranties. User shall determine the suitability of the products for the intended use and assumes all risks and liability in connection therewith. For professional use only; not for sale to or use by the general public.



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