# **Galvashield® SM-DAS**

Installation Instructions



#### **STEPS**

- 1. Surface Preparation
- 2. Anode Layout and Steel Location
- 3. Mounting Track Installation
- 4. Anode Anchor Marking & Drilling
- 5. Mortar Anode
- 6. Hang & Anchor
- 7. Make Anode Wiring Connections
- 8. Install Cover Strips
- 9. Install End Caps

#### 1. Surface Preparation

Before starting the installation, ensure that the concrete surface is clean and even. Complete any necessary concrete repairs, and remove any dirt, loose barriers, or coatings. The surface must not have any relief changes of more than 3mm (1/8"). Blow the surface clean of any dust and blast media with dry compressed air, and vacuum clean if required. Prior to the installation of the anode, the concrete must be wet with water to a point where surface saturated dry conditions are achieved.

#### 2. Anode Layout & Steel Location

Determine the location for the anode installation and use a chalk line to mark the top line of the anodes. Along the length of the anode installation, use a rebar locating device to find reinforcing steel to make a connection within 100mm (4") of each end of the anode. If you are linking multiple units together, consult the Technical Datasheet or the engineer for steel connection requirements and maximum spacing.

#### 3. Optional Mounting Track Installation

The Galvashield® Surface Mounted DAS can optionally be installed using our Mounting Track kit. If you are not using this kit, skip to step 4b. Install the mounting track along the chalk line, placing it near the center of the desired anode location. Mark the points for the drilled holes for the concrete anchors using the holes on the mounting track. Drill a 6mm (1/4") hole at each mark. Once the holes have been drilled, anchor the mounting track with supplied anchors. Avoid overtightening to prevent deformation of the mounting track.

#### 4a. Anode Anchor Marking & Drilling with Track

If the Mounting Track was used, hang the anode onto the mounting track and position it to mark locations for drilling anchor holes. Remove the anode from the mounting track and drill the marked locations with a 6mm (1/4") drill bit.



1. Prepare Surface



2. Mark top of anode for chalk line



3. Install mounting track



4. Hang anode from track

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1/3

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# GALVANIC SYSTEMS

#### 4b. Anode Anchor Marking without Track

Hold the anode in position, then mark locations for drilling anchor holes. Mark the remaining anchor holes located on the wiring track of the anode. Remove the anode and drill the marked locations with a 4mm (5/32") drill bit.

#### 5. Mortar Anode

Use Galvashield<sup>®</sup> Embedding Mortar to fill the area between the anode and the surface of the concrete. Mix the mortar as directed. If the concrete surface contains large voids or depressions, fill them with mortar to ensure no air gaps are left behind the anode. Use the custom V-notched trowel tool to spread the mortar completely along the entire length of the anode, leaving a ridged profile of the mortar to ensure proper bonding of the anode to the concrete

#### 6. Hang & Anchor

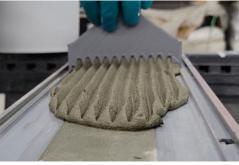
Saturate concrete surface with water before applying anode. Ensure no standing water. Carefully line up the anode to the drilled anchor holes. The mounting track can be used to help with alignment. Press the anode firmly onto the concrete, allowing mortar to spread out under the anode and eliminating any voids or gaps. Fasten the anode to the concrete using supplied anchors.

#### 7. Make Anode Wiring Connections

Make connections to steel as per engineer's instructions. Anode wires are connected to the steel connections at both ends of the anode using the wiring connecter provided. If the anode connection wire requires insulation stripping, remove insulation to the length specified by the connector. Lift levers fully and place wires into the connector, one wire per connection hole. Fold down the lever and firmly click into the locked position—test the connection by lightly tugging each wire. Encapsulate the entire connection inside of the gel-filled insulation box provided, closing firmly.

#### 8. Install Cover Strips

Once the anode is firmly anchored, install wiring track cover strips. Strips can be installed by sliding them in from the end, and the curved lip should be toward the outer edge of the anode. Alternatively, it can be placed on the wiring track and tapped into place with a rubber hammer or mallet.



5. Mortar anode with v-notched trowel



6. Hang and anchor



7. Make anode wiring connections



8. Install Cover Strips



2/3

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#### 9. Install End Caps

End caps are installed over the anode connections by either sliding over the ends or clicking over the top. The cap should cover the steel connection location and the anode-to-steel connection. The cap is then secured in place with two concrete anchors, taking care not to interfere with the anode or steel connections. The cap may be sealed to the concrete surface and the anode surface with caulking or epoxy.



9. Install end caps

#### **HEALTH AND SAFETY**

As with all cement-based materials, contact with moisture can release alkalis which may be harmful to exposed skin. Galvashield<sup>®</sup> SM-DAS and Galvashield<sup>®</sup> 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 Galvashield<sup>®</sup> SM-DAS documents are available including independent product evaluations, installation instructions, guideline specifications, project histories, applications, pricing and MSDS. 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.

3/3



## **Technology Development**

Vector continues to lead the way with major research and development activities conducted at our two laboratories.

Vector's UK-based laboratory performs fundamental research in the area of concrete corrosion and cathodic protection of concrete.

Vector's North American product development lab is the proving ground for innovations in concrete anodes and post-tension corrosion mitigation technologies.



Watch our installation video on YouTube

## **Technical Consultation**

Vector works collaboratively with engineering consultants, government agencies, private owners and contractors to identify the root cause of deterioration and deliver technologically advanced, cost effective corrosion solutions. Our certified cathodic protection engineers

and technicians are trained in the most advanced concrete restoration and corrosion mitigation techniques.

### **International Distribution**

Vector's cathodic protection technologies are available worldwide from over 30 distributors strategically placed in most major markets. Contact Vector or visit our website for an up-to-date list of international distributors.

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