

# Galvashield® SM-DAS

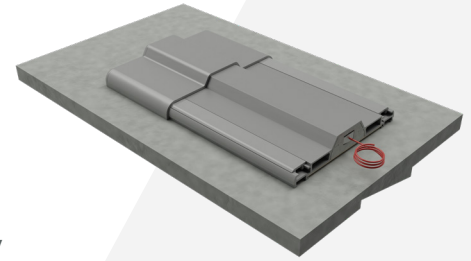
GALVANIC SYSTEMS



## Surface Mounted Distributed Anode Corrosion Protection System

Galvashield® SM-DAS is a surface mounted distributed anode system designed to provide corrosion control or cathodic protection to steel reinforced concrete structures.

Galvashield® SM-DAS anode units are distributed across reinforced concrete and masonry structures to provide global corrosion protection or can be used to target specific sections with high corrosion risk such chloride contaminated concrete around joints and areas with high corrosion potential. Galvashield® SM-DAS anodes contain alkali-activated mortar cast around a high purity zinc core. Once installed, the zinc anode corrodes preferentially to the surrounding steel reinforcement, thereby providing galvanic corrosion control to the embedded reinforcing steel. The quantity of zinc provided, the anode length, electrical components and installation procedures are customized to meet specific project requirements.



### Features and Benefits

- **Proven technology** – utilizes Galvashield® technology which is supported by independent test program and over 20 years of real world performance data.
- **Fast installation** – the surface mounted anode tray has been designed for maximum installation efficiency.
- **Long lasting** – the designed 10 to 40 year anode life\* reduces the need for future repairs.
- **High capacity** – can provide more zinc and more current output than other galvanic anode systems.
- **Design flexibility** – anode design and spacing can be customized to meet project performance requirements and service life objectives.
- **Convenient replacement** – surface mounted anodes can be easily removed and replaced when needed.
- **Economical** – save time and money by targeting only the remaining areas of high corrosive risk.
- **Versatile** – effective in chloride contaminated and carbonated concrete. Can be used for both conventionally reinforced and prestressed or post-tensioned concrete.
- **Low maintenance** – requires no external power source or system monitoring.
- **Measurable** – anode performance can be easily monitored.
- **Mechanically bonded** – anchors ensure bond to structure is maintained throughout the service life of the anode.
- **Fire & heat resistance** – rated 5VA under UL 94, the anode housing uses uPVC material which is combustible but also naturally flame retardant and will not cause, support or encourage the development of fire.
- **Cathodic protection** – can be designed to meet ISO12696 and NACE/AMPP cathodic protection performance criteria.
- **UV resistant** – anode housing is made with uPVC which is the same material used in vinyl house siding. uPVC has excellent durability in outdoor environments, including high UV degradation resistance.

### Applications

- Columns and beams
- Parking structures
- Concrete tanks
- Prestressed concrete
- Bridges, piers and wharfs
- Bridge deck soffits
- Power and industrial plant rehabilitation
- Service life extension in severe service conditions
- Shallow or thin concrete members
- Double T beams

*\*As with all galvanic protection systems, service life is dependent upon a number of factors including reinforcing steel density, concrete conductivity, chloride ion concentration, temperature, humidity and anode spacing.*



# Galvashield® SM-DAS

## Surface Mounted Distributed Anode Corrosion Protection System

### How it Works

When two dissimilar metals are coupled together in an electrolyte (concrete), the metal with the higher electronegative potential for corrosion (zinc) will corrode in preference to the more noble metal (reinforcing steel). Galvashield® SM-DAS anodes are attached to sound concrete with Galvashield® Embedding Mortar, an ionically conductive mortar then mechanically anchored to provide corrosion prevention or corrosion control to the embedded reinforcing steel.



### Design Criteria

For assistance with system design, please contact Vector Corrosion Technologies.



### Specification & Drawings

See sample specification and drawings provided on our website.



### Installation Instructions

See installation instructions provided on our website.

	SM-DAS		SM-DAS-X	
<b>Zinc Weights</b>	0.6 lb/ft	0.89 kg/m	1.65 lb/ft	2.45 kg/m
<b>Lengths</b>	Recommended 39 in (100 cm), can be customized to meet project requirements			
<b>Anode Dimensions</b>	6" x 1" 150 mm x 26 mm		6.3" x 1.18" 160 mm x 30 mm	
<b>Custom Ordering Example</b>	SM-DAS – 32 in		SM-DAS-X – 100 cm	



Packaging	
<b>Galvashield® SM-DAS Anodes</b>	5 Anodes per box
<b>End Caps</b>	Covers end of anode and the wired connection
<b>Track Cover Strips</b>	Covers anchoring track
<b>Insulated Anchors</b>	Stainless steel anchors with insulated sleeves
<b>Galvashield® Embedding Mortar</b>	20 kg (44 lbs.) bags - one bag per 15–17 anodes
<b>Custom V-Notched Trowel</b>	For effectively applying Galvashield® Embedding Mortar
<b>Wire Connectors</b>	User friendly and secure wire connectors
<b>Gel Insulator Boxes</b>	Insulates wire connection from moisture
<b>Din Rail Mounting Kit</b>	Optional anode horizontal installation assistance kit
<b>U-Bracket Mounting Kit</b>	Optional anode vertical or overhead installation assistance kit
<b>Rivet Connection Kit</b>	For making connection to embedded steel

Optional Inclusions	
<b>Inter-anode Junction Covers</b>	Used for chained installations



# Galvashield® SM-DAS



## Surface Mounted Distributed Anode Corrosion Protection System

### Precautions

Galvashield® SM-DAS anodes may be part of an overall structure rehabilitation program to extend the service of life of corroding columns and piles. Where structural damage exists, consult a structural engineer.

Galvashield® SM-DAS anodes may be used in conjunction with Vector's extensive line of galvanic corrosion protection products to protect other portions of the structure. For more information on corrosion mitigation strategies and options, contact Vector Corrosion Technologies.

### Storage

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

### Health and Safety

Portland cement concrete and mortar should be handled with suitable gloves and other personal protective equipment in accordance with standard procedures for handling cementitious materials.

### 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](https://www.VECTORCORROSION.COM).

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

## Vector Corrosion Technologies

### Vector-Corrosion.com

#### Canada

Winnipeg, MB  
(204) 489-9611  
[info@vector-corrosion.com](mailto:info@vector-corrosion.com)

#### United States

Lexington, KY  
(813) 830-7566  
[info@vector-corrosion.com](mailto:info@vector-corrosion.com)

#### Indonesia

Nusa Tenggara Barat  
+62 8213 777798  
[info@vector-corrosion.com](mailto:info@vector-corrosion.com)

#### United Kingdom

Cradley Heath, UK  
(44) 1384 671 400  
[infoeu@vector-corrosion.com](mailto:infoeu@vector-corrosion.com)

#### United Arab Emirates

Dubai, UAE  
+971 50 659 7322  
[infome@vector-corrosion.com](mailto:infome@vector-corrosion.com)

#### Australia

Redhead, NSW  
+61 497 249 868  
[infoau@vector-corrosion.com](mailto:infoau@vector-corrosion.com)

*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](http://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.*



Galvashield, Vector and the Vector logo are registered trademarks. US and international patents and patents pending.  
© 2024 Vector Corrosion Technologies. 01/2024

### Contact Us



We Save Structures™

[Vector-Corrosion.com](http://Vector-Corrosion.com)