

## Vector®

### Galvashield® XP Product Line Embedded Galvanic Anode Units with 2G Technology™

#### Description

The Galvashield XP range of embedded galvanic anode units utilize an innovative zinc anode core design surrounded by an enhanced formulated cement-based mortar to provide corrosion mitigation to reinforced concrete structures. The anode units are alkali-activated (Type A) with an internal pH of 14 or greater to keep the zinc active over the life of the anode while being non-corrosive to reinforcing steel. The anode units utilize 2G Technology™ to provide higher current output. Once installed, the zinc anode corrodes preferentially to the adjacent reinforcing steel, thereby providing galvanic corrosion prevention or corrosion control.

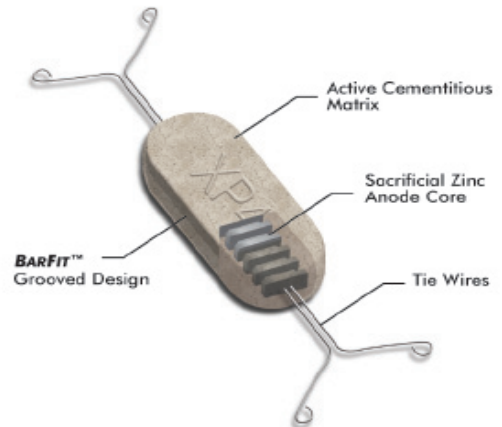
#### Applications

- Mitigates incipient anode formation (halo effect) in patch repair
- Bridge widening and other structure modifications
- Slab replacements, expansion joint repairs and other interfaces between new and existing concrete
- Repair of prestressed and post-tensioned concrete
- Chloride contaminated or carbonated concrete
- Repair of structures with epoxy-coated rebar

#### Features and Benefits

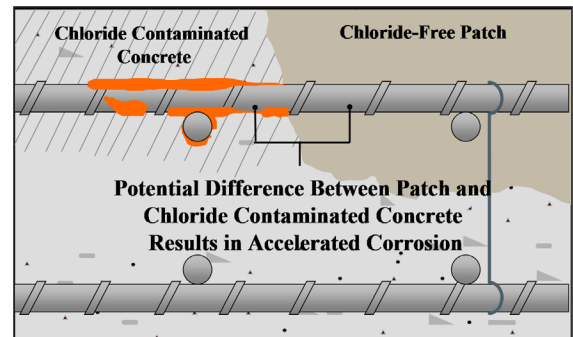
- **Proven technology** - Galvashield anodes have an extensive 10+ year track record in the field and have received British Board of Agrément (BBA) approval.
- **Type A anode** - alkali-activated to maintain activity of zinc while being non-corrosive to reinforcing steel.
- **2G Technology™** - provides enhanced current output and protection.
- **Cast zinc core** - provides high anode utilization in addition to a secure long-term connection between the zinc and the lead wires.
- **Integral steel lead wires** - allows for quick and convenient anode installation. Provides dependable steel-to-steel contact with no intermediate materials such as galvanizing (which can corrode over time) that may compromise the long-term electrical connection.
- **BarFit™ design** - grooved edges on Galvashield XP2 and XP4 anode units assist with secure anode placement.
- **Economical** - provides localized protection where it is needed the most, at the interface of the repair and the remaining contaminated concrete.
- **Versatile** - can be used for both conventionally reinforced and prestressed or post-tensioned concrete.
- **Low maintenance** - requires no external power source or system monitoring.
- **Long lasting** - 10 to 20 year service life\* reduces the need for future repairs.

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

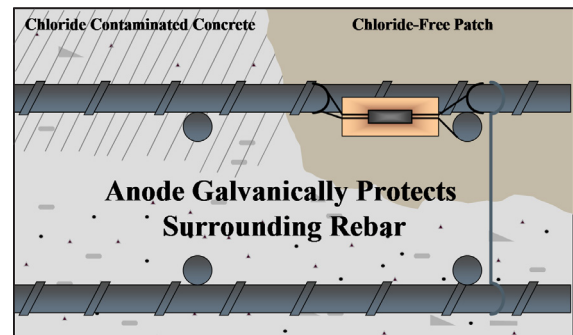


Cut-away of Galvashield XP4

Level of Protection	Description	Galvashield® XP/XPT	Galvashield® XP2/XP4
Corrosion Prevention	Mitigates initiation of new corrosion activity	•	•
Corrosion Control	Reduces on-going corrosion activity		•
Cathodic Protection	Reduce or eliminate on-going corrosion activity		



“Ring Anode” Corrosion (without Galvashield XP)



Galvashield XP prevents “Ring Anode” Corrosion



# Vector® Galvashield® XP Product Line

## Anode Spacing for Low to Moderate Corrosion Risk (Chloride Content < 0.8% or Carbonated Concrete)

Protection Level	Corrosion Prevention				Corrosion Control			
	XP or XPT		XP2		XP2		XP4	
Galvashield Anode	XP or XPT		XP2		XP2		XP4	
Steel Density Ratio	mm	in.	mm	in.	mm	in.	mm	in.
<0.3	750	30	750	30	600	24	750	30
0.31 - 0.6	600	24	700	28	500	20	700	28
0.61 - 0.9	500	20	650	26	400	16	550	22
0.91 - 1.2	450	18	550	22	350	14	450	18
1.21 - 1.5	400	16	500	20	250	10	425	17
1.51 - 1.8	350	14	450	18	200	8	375	15

## Anode Spacing for High Corrosion Risk (Chloride Content 0.8% to 1.5%)

Protection Level	Corrosion Prevention				Corrosion Control	
	XP or XPT		XP2		XP4	
Galvashield Anode	XP or XPT		XP2		XP4	
Steel Density Ratio	mm	in.	mm	in.	mm	in.
<0.3	600	24	750	30	600	24
0.31 - 0.6	500	20	600	24	500	20
0.61 - 0.9	400	16	500	20	400	16
0.91 - 1.2	350	14	450	18	350	14
1.21 - 1.5	250	10	400	16	250	10
1.51 - 1.8	200	8	350	14	200	8
1.81 - 2.1	175	7	300	12	150	6

For extremely high corrosion risk applications (> 1.5% Chloride), contact Vector for assistance.

Note: Chloride content is based on percent by weight of cement.

\*Maximum grid dimensions are based on typical conditions. Spacing should be reduced as appropriate for severe environments or to extend the expected service life of the anode.

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Page 3 of 3

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 Vector Corrosion Technologies, Inc. 13312 N. 56th Street, #102 Tampa, FL 33617  
 Vector products are provided with a standard limited warranty against defects for a period of 12 months from the date of the 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).  
 User shall determine the suitability of the products for the intended use and assume 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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