AEGION

Stronger. Safer. Infrastructure.

Cathodic Protection Systems For Concrete

Corrpro Companies provide extensive corrosion engineering services and cathodic protection materials for steel reinforced concrete structures, including bridges, parking garages, buildings and marine structures such as piers and wharves. Our fully qualified staff provides engineering, research, inspection, and other consulting services from our worldwide offices.

Corrpro offers a broad array of products and services for the concrete market, including:

- ELGARD™ catalyzed titanium anode mesh & ribbon
- Reference electrodes for system monitoring
- Rectifiers
- Remote control and monitoring systems
- Corrosion engineering analysis of structures
- System engineering and design installation and/or installation supervision
- Project management
- Sacrificial anodes
- Thermally sprayed titanium

Concrete cathodic protection systems are designed to address corrosion problems in steel reinforced concrete. The major cause of corrosion in such structures is the presence of salt resulting from the application of de-icing chemicals, exposure to sea water or the use of contaminated aggregate in the original concrete mix. When steel bars in concrete corrode, the formation of rust causes high internal pressures. Tensile stresses are exerted on the surrounding concrete. Cracks develop leading to delamination and spalling of the concrete.

Cathodic protection effectively stops the corrosion process and has been determined by the Federal Highway Administration to be the only rehabilitation technique able to prevent further corrosion in such structures regardless of the salt content in concrete. Cathodic protection of reinforced concrete structures has also been endorsed by the American Concrete Institute (ACI), AASHTO-AGC-ARTBA Task Force 29, and the National Association of Corrosion Engineers (NACE International).

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