



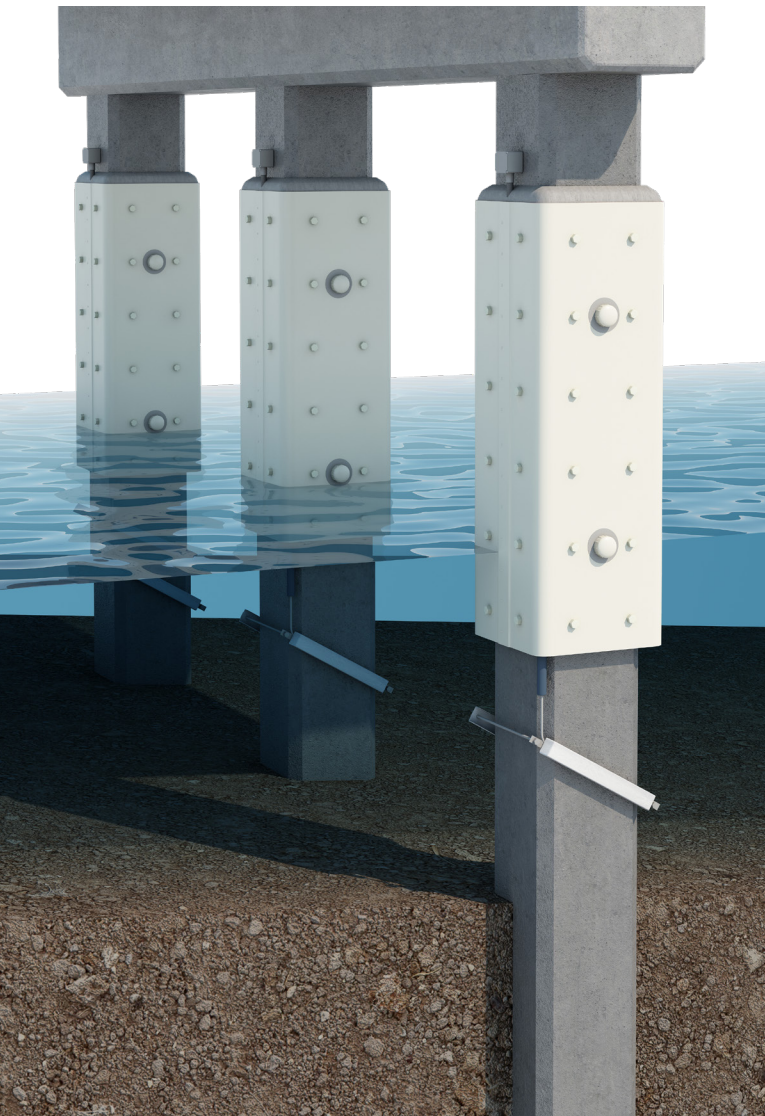
## MARINE STRUCTURE REPAIR & PROTECTION:

# LifeJacket® Galvanic Cathodic Protection



*The LifeJacket® Cathodic Protection System uses a proprietary zinc mesh anode placed directly against the inside face of a stay-in-place fiberglass form, and is proven to stop corrosion by providing an electrical current to the affected region. This current is produced through a galvanic process and thus, does not require a remote power supply.*

The custom fabricated fiberglass jackets are designed and manufactured to fit a wide range of infrastructure shapes and sizes for rapid installation. Along with providing the attachments and components of a cathodic protection system, LifeJacket® also creates a stay-in-place form that is used for a “form and pump” repair of the concrete structure that is being repaired and protected.



### LifeJacket® Features:

#### Customized for Every Application

The LifeJacket® System may be tailored for nearly any type of structural component. STRUCTURAL TECHNOLOGIES has successfully adapted the LifeJacket® System for a wide variety of marine and industrial applications.

#### Repairs, Strengthens, Protects

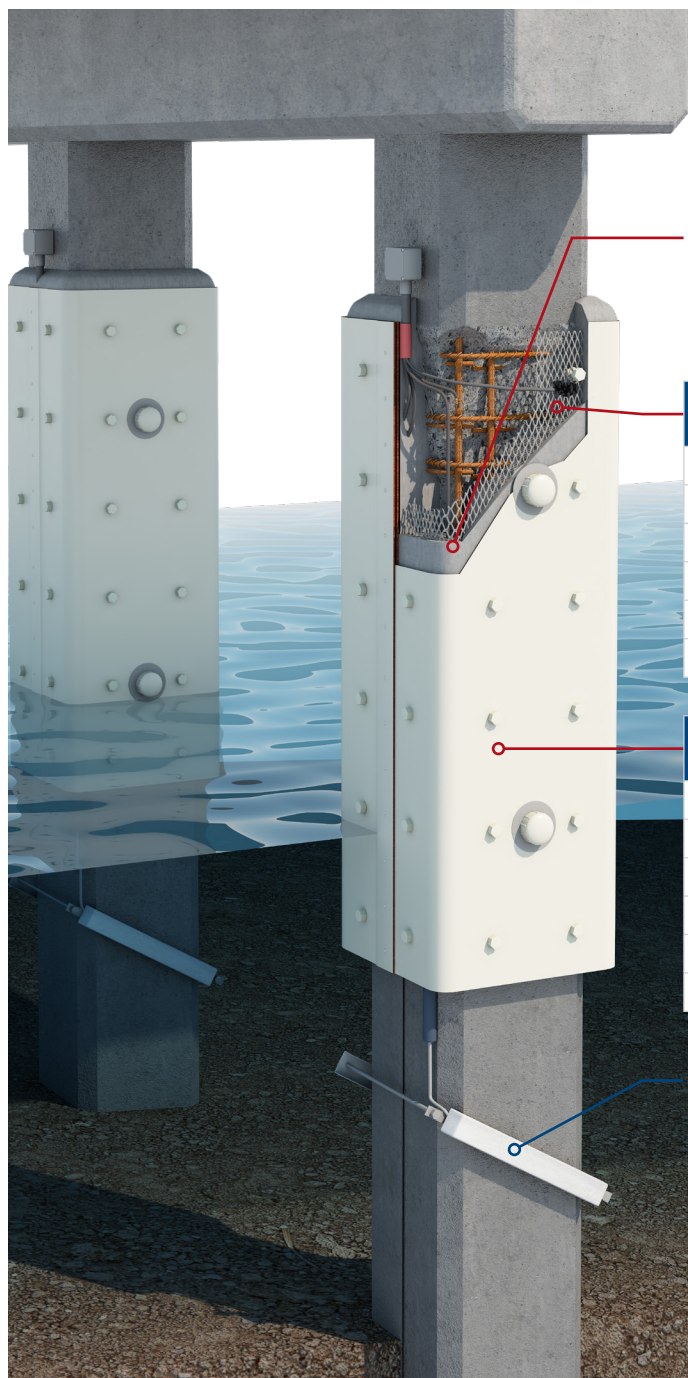
In addition to providing corrosion protection, the stay-in-place LifeJacket® serves as a form for placement of cementitious repair materials for cross-section loss, adding or restoring capacity to a structure.

#### Delivers Optimal Protection

LifeJacket® is a maintenance-free system – its current output self adjusts to meet changes in temperature, humidity, concrete resistivity and a number of other factors, delivering optimum corrosion protection to the structure at all times.



## TECHNICAL DATA:



**Cement / Grout Fill:** encapsulates zinc mesh, exposed reinforcement, and fills cavities in structure to restore column integrity

### Zinc Anode

Electrical Conductivity	27% IACS
Zinc Mesh Weight	7.8 Kg/m <sup>2</sup> (1.6 lb/ft <sup>2</sup> )
System Weight	17.1 Kg/m <sup>2</sup> (3.5 lb/ft <sup>2</sup> )
Average Open Area of Zinc	53%
Current Capacity	738 A•hr/Kg (335 A•hr/lb)
Typical Life Expectancy	25 years, minimum

### Glass Reinforced Polymer (GRP) Casing

Water Absorption (ASTM D570)	1% max.
Ultimate Tensile Strength (ASTM D638)	103 MPa min. (15,000 psi min.)
Flexural Strength (ASTM D796)	172 MPa min. (25,000 psi min.)
Flexural Modulus of Elasticity (ASTM D790)	4.8 GPa min. (700 ksi min.)
IZOD Impact (ASTM D4812)	15 ft-lb/inch min.(unnotched)
Barcol Hardness (ASTM D2583)	45 min.

**Bulk Anode (optional):** Additional zinc bulk anodes increase service life of LifeJacket® system