

CABLEGUARD[™]

Elastomeric Cable Wrap System

Bridges



Long-term Corrosion Protection For Suspension Bridge Cables

Cableguard[™] is an environmentally safe, long-life elastomeric wrap that protects suspension and stayed bridge cables from corrosion and reduces many future maintenance costs.

Bridge the World with Leading Infrastructure Solutions

CABLE DEHUMIDIFICATION FOR SUSPENSION BRIDGES

Dehumidification of enclosed steel cables on suspension bridges is accepted and employed as an active corrosion protection method on landmark bridges worldwide.

When dehumidified air is injected into the cable, it absorbs trapped moisture. The saturated air is then exhausted through ports further up the cable. Over time, moisture is reduced to levels that eliminate the possibility of cable corrosion. This system also produces pressure inside the sealed cable to prevent water and moisture from entering the cable.

Dehumidification systems typically include three primary components:

1. An effective sealing system is applied to the span's main cable, such as D.S. Brown's Cableguard[™] Elastomeric Wrap System. In addition to the main cable, this system also seals the cable bands.
2. A dehumidification plant produces and blows dry air through the cables.
3. A control and monitoring system automatically adjusts the system to real time conditions.



LONGTERM CORROSION PROTECTION FOR BRIDGE CABLES

Cableguard[™] is an environmentally safe, long-life elastomeric wrap that protects suspension and stayed bridge cables from corrosion and reduces maintenance expense. This 2.3mm thick protective wrap completely encapsulates existing surface coatings without scraping, grinding or painting before installation.

The Cableguard[™] Elastomeric Wrap System's excellent UV and ozone resistance has been demonstrated on installations worldwide, confirming that Cableguard[™] outperforms paint systems. It creates a flexible, watertight seal that is ideal for use with cable dehumidification systems. This innovative protection system is easily installed and readily accommodates future cable inspection. Cableguard[™] is available in many colors for new bridge construction or rehabilitation projects.



The Högakusten Bridge in Sweden was wrapped in 2005 and employs main cable dehumidification.

INSTALLATION STEPS FOR SUSPENSION CABLES



1. Use the Skewmaster™ wrapping machine to apply Cableguard™ between cable bands with a 50% overlap.



2. Using an electric heating blanket, heat the wrap for 5-10 minutes to create a permanent bond.



3. Seal the cable bands using a neoprene wedge and finishing strip.



4. Apply anti-slip walkway surface to the topside of the wrapped main cables.

INSTALLATION STEPS FOR STAYED CABLES



1. Use the Skewmaster™ wrapping machine to apply the Cableguard™ continuously with a 50% overlap.



2. Using an electric heating blanket, heat the wrap for 5-10 minutes to create a permanent bond.

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Cableguard™ Advantages



- Lowest lifecycle cost for cable corrosion protection
- Lifespan of 50+ years
- Flexible and watertight
- Easy to repair
- Available in many colors

D.S. Brown Cableguard™ Signature Projects

The following list highlights some signature projects by The D.S. Brown Company.

Anthony Wayne Bridge *Toledo, OH*

Papaloapan Bridge *Vera Cruz, Mexico*

Li Jia Tou Bridge *Chongching, China*

Jing Hong Bridge *Yunnan, China*

Yuan Tong *Kunming, China*

Little Belt Bridge *Middelfart, Denmark**

St. Johns Bridge *Portland, OR*

d'Aquitaine Bridge *Bordeaux, France**

Quincy Bridge *Quincy, IL*

Högakusten Bridge *Sweden**

Duarte Bridge *Dominican Republic*

Forth Bridge *Scotland**

Severn Bridge *Wales**

Humber Bridge *England**

Manhattan Bridge *New York, NY*

Alvsborg Bridge *Sweden**

Hardanger Bridge *Norway**

*These projects were completed in conjunction with a cable dehumidification system.