

Cable Supported Bridge Technologies



ENGINEERING
STAY CABLE SYSTEMS
BRIDGE ARMOR SYSTEMS
REINFORCEMENT SYSTEMS
REPAIRS & MODIFICATIONS

www.vsl.net
A Structural Group Company

Stay Cable Development

As a specialist stay cable provider, VSL has developed the SSI 2000 stay cable system to provide the optimal solution for ever-changing and complex engineering requirements. The system's features include:

- Prefabricated Anchorages – No On-Site Assembly Required
- High Fatigue Resistance
- Compact, Lightweight and Economical Anchorages
- Standard Components for Anchorage and Deviator
- Individual Leak-tight Encapsulation of Strands
- Optimized for Single Strand Installation and Stressing
- Enhanced Durability and Easier Long-Term Maintenance
- Integrated Damping Systems
- Automatic Monostrand Stressing (AMS) System
- Technical Field Support and Installation Services



Vibration Control

VSL offers a variety of vibration control systems designed specifically for each bridge application. VSL's systems can accommodate large and small amplitudes and high and low frequencies. These systems include:

- High Dampening Rubber Gensui Dampers
- Integrated Friction Dampers
- Viscous Dampers
- Helical Ribbed Stay Pipes
- Transverse Ties



Fire Protection

VSL has extensive experience in selecting and installing fire protection systems, including:

- V-Strand™ Heat-Resistive Post-Tensioning Tendons
- Intumescent Coatings



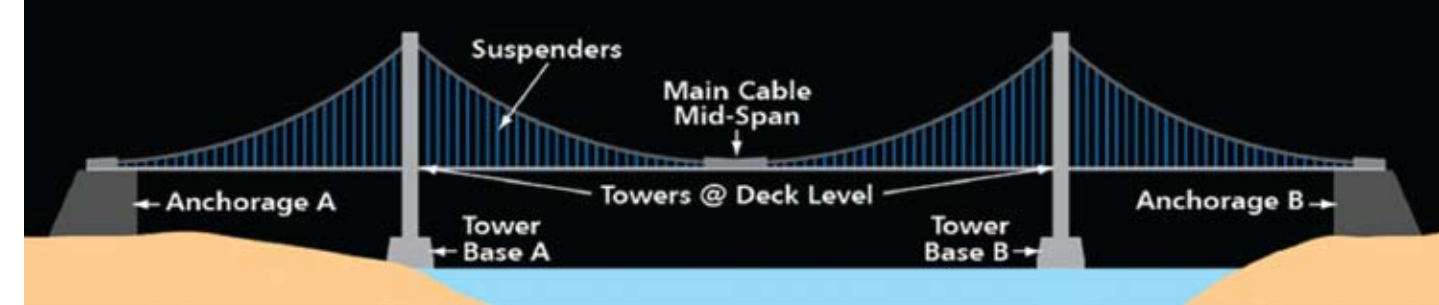
Bridge Armor Systems

VSL, along with Hardwire® LLC, a composite armor specialist, works with project teams to analyze and design custom structural hardening solutions for bridge protection. The process includes evaluation, system development and testing to ensure compliance with owner requirements. VSL supplies and can install durable bridge protection solutions that are easily removable for inspection. These include:

- Ballistic Protection For Cable and Other Tension Elements
- Protection From Mechanical and Torch Cutting
- Blast Protection
- Fire Resistant Materials and Intumescent Fire Protection



VSL bridge armor systems can be designed to protect a variety of bridge components:



Structural Monitoring

VSL offers preventive maintenance and monitoring systems for bridges, including:

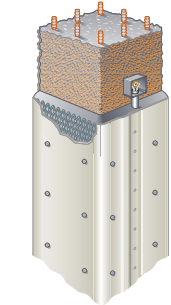
- Cable Vibration Testing and Monitoring
- Cable Load Monitoring
- Corrosion Monitoring
- Wind and Rain Monitoring
- Electrical Isolation
- Grout Inspection



Corrosion Protection

VSL offers a wide range of technologies for protecting, mitigating and eliminating corrosion of both reinforcing steel in concrete and exposed steel, including:

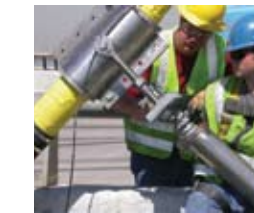
- Metalized Cathodic Protection (MCP) System®
- Sacrificial and Impressed Current Cathodic Protection Systems
- LifeJacket® System
- V-Grout+™
- Dry Air Systems



Repair, Strengthening and Retrofit

VSL specializes in the repair, strengthening and retrofit of bridges, including stay cable and suspension bridges. Our services include:

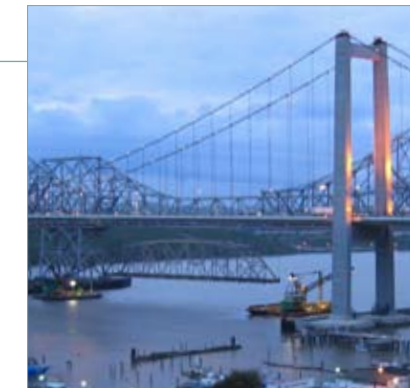
- External Post-Tensioning
- Deck Sealing
- Precast Sealing
- Vibration Damper Retrofit
- Stay Cable Replacement
- Vacuum Grouting
- Crack Injection
- Bearing Replacements



Bridge Erection and Dismantling

VSL offers a variety of services and systems for bridge erection and dismantling, including:

- Heavy Lifting
- Stay Installation
- Segmental Bridge Erection
- Erection Gentries
- Form Travelers
- Beam and Winch





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VSL OPERATING CENTERS:

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