

EXTEND THE SERVICE LIFE OF YOUR SUBSEA CABLE SYSTEM

Independent Testing Services

Test to your Specifications.

Our fully equipped facility offers testing services that can be uniquely tailored to meet your needs.

- Evaluation, qualification, design verification & acceptance test programs
- Continuous monitoring of power & signal conductors and optical fibers throughout testing
- Certification and qualification to meet government, commercial, institutional and international standards
- Standardized test methods & test report format IAW ANSI Z39.18
- Confidential results and on-site record retention

We work with you to ensure survivability of your system at sea.

PMI is capable and willing to take on new challenges to simulate service conditions experienced by underwater cable systems and devices.

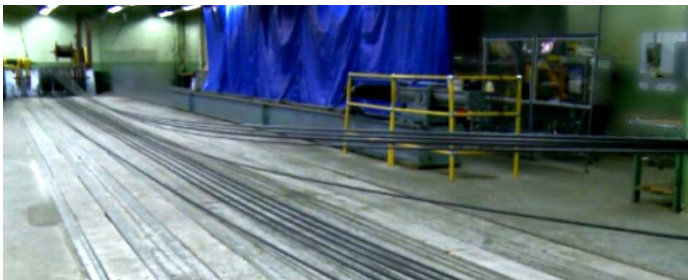
Our specialty is to provide insight with respect to the interaction between the strength member and attached hardware or the complete cable assembly.

PMI will test all or any part of your project.

Raw Cable (Metallic & Synthetic Strength Members)

Rope & Hose Assemblies

Cable Assemblies, Cable Hardware, Terminations & more!



Long Span Proof Load—Up to 1.5km (4900 ft.) of cable over multiple sheaves. Tension up to 10,000 lbs.



Hydrostatic Pressure Chamber

PMI
UNDERWATER CABLE SOLUTIONS

Typical at-sea conditions can cause catastrophic failures to your system. Our facility can assist you to identify potential problems prior to use by performing extensive laboratory testing prior to use.

Tension

- Break Strength
- Test Load vs. Elongation Data
- Proof Load Certification
- Dynamic Load Simulation
- Fatigue & Retirement Criteria
- Cable Design Verification/Qualification
- Certification of Cable Assemblies
- Pre-tensioning of cable prior to terminating

Hydrostatic Pressure

- Simulate At-Depth Pressure Loading
- Verify Seal and Electrical and Optical Performance

Bending

- Static & Dynamic Cable Qualification
- Simulate Handling System Problems
- Qualify Cable Fairing & Hardware
- Verify Wet / Dry Fatigue Performance
- Cable Jacket Abrasion Tests
- Simulate Tow Point Dynamics
- Fatigue Testing
- Design Qualification

Measurement and Analysis

- Tension vs. Torque
- Tension vs. Rotation
- Torque Balance verification
- Cable Qualification
- Verify "Non-Rotating"
- Test for Twist Resistance
- Torque Restraint Testing Verification
- Monitoring & Measurement of Conductor and/or Optical Fiber Performance

TECHNICAL SUPPORT

If you have questions or concerns about PMI testing services, please contact our engineering staff directly.

TEST EQUIPMENT & CAPABILITY

TENSION- Up to 65 ft., tension up to 100,000 lbs. Proof, tension and breaking strength.

CYCLIC TENSION- Up to 65 ft., tension up to 100,000 lbs.

SERVO-CONTROLLED TENSION- Programmable rate of load or displacement using ramp, sine, saw tooth, or recorded waveforms. Up to 65 ft., tension up to 100,000 lbs. at a rate of 120 in./minute (max).

LONG SPAN PROOF LOAD- Up to 1.5km (4900 ft.) over multiple sheaves, tension up to 10,000 lbs.

HYDROSTATIC PRESSURE- 1,500-psi to 10,000-psi.

CYCLIC BEND OVER SHEAVE- Multi-sheave test frame, tension up to 60,000 lbs.

CYCLIC TENSION OVER SHEAVE- Multi-sheave test frame, tension up to 60,000 lbs.

CYCLIC FLEXURE- Repeated bends to $\pm 27^\circ$, tension up to 20,000 lbs.

REVERSE BEND OVER SHEAVES- Tension up to 10,000 lbs.

TORQUE & ROTATION- In-line torque cells for Torque vs. Tension data. Torque up to 750 ft-lbs, rotation to $\pm 1080^\circ$, tension up to 100,000 lbs.

INDUCED TORQUE / ROTATION- Controlled rotation of tensioned specimen while measuring in-line torque & twist. Torque up to 750 ft-lbs, rotation to $\pm 1080^\circ$, tension up to 100,000 lbs.

ELECTRICAL- High-voltage breakdown, Corona, insulation resistance, impedance, DC resistance, capacitance, attenuation, cross-talk, TDR, current capacity, etc.

OPTICAL- Loss measurements of fiber-optic cable elements using power-meters, laser, OTDR, splicers & field-installable connectors.

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