## **5 Days Design-to-Deliver**



## Contractor threatened with liquidated damages seeks rapid solution from NWI EXPRESS.

Northwire Underwater Cable bails out international underwater entertainment venue.

OSCEOLA, WI — Northwire Technical Cable, an innovative solutions provider in the marketing, design and manufacture of technical and retractile cables and cable assemblies, came to the rescue when operations at one of the world's largest casino's underwater entertainment venue were waylaid by failed underwater cable. Faced with liquidated damages, the contractor responsible for the installation contacted Northwire for an **expedited custom solution.** At no cost, Northwire engineered several designs, tested and developed, and rapidly prototyped custom cable solutions in five days enabling the multimillion dollar production to resume.

The casino's application is in a water theater where the cable controls and powers moving platforms and water jets. The cable sends signals from a central control computer to system actuators, powering pumps, valves and lighting. Forensic cable experts referred the executive contractor responsible for the underwater venue installation to Northwire. The original cable failed to block water and, instead, acted like a hose, siphoning water into central control computers—destroying over \$250,000 worth of equipment.

"The customer called late on Friday in need of an urgent solution," says Mike Conger, president of Northwire. "Our engineering team translated the customer's critical-to-quality requirements into several designs, test and development protocols and rapid prototypes. Results were reported to the customer the following business day. He selected one of several custom solutions. Two days later, our production team shipped his product."

The application demanded water-blocking cable that could withstand 15 pounds per square inch (PSI) of water pressure–all day, every day. Northwire provided 6,000 feet of its Underwater Cable, which is tested to withstand 100 PSI. In addition to being engineered to tolerate submersion in chlorinated water, the customer's cable specifications required flexibility for installation around concrete pylons and resistance to cuts and abrasions.

Consecutively producing engineered solutions for the contractor for other underwater entertainment venues, including the world's largest cruise ship, Northwire's continuous test and development methodology ensures the performance of its Underwater Cable.

"Northwire's team demonstrates commitment to all of our valued customers through company-wide initiatives in research and development, rapid prototyping, new product engineering, and test and development," says Mike Conger. Northwire's Underwater Cable offers solutions for fresh water, salt water, chlorine, chemical and solvent environments; and custom designs for power, video, control and data communication needs. Buoyancy options include neutral, positive and negative.

Underwater Cable features premium abrasion-resistant jacket materials and material formulations for specific applications, including a jacket that repels salt water. FDA-approved materials also are available. Other special features are various fluid- and water-blocking tapes and fillers, markings on cable for depth, custom jacket colors, custom labeling and overmold compatibility. Custom constructions include strength members and aramid fibers for added pull strength.

Additional applications include power for fountains and other water features, underwater lighting in pools and water features, umbilical cables that attach to sensors and instruments for monitoring water quality and conditions of underwater structures, and control and power cables for underwater theaters.

Northwire provides quotes in 24 hours or less and offers no-cost design and rapid prototyping to encourage customers to explore innovative solutions. Subject matter experts help customers navigate complex domestic and international standards, agency compliance, environmental regulations and electrical, mechanical, ergonomic, aesthetic and end-user requirements.

FLEX:



## EXTREME ENGINEERING:

