



INSTRUMENT TECHNOLOGY, INC.

## Deepwater Video Fiberscope

### General Information

Customer:  
Stolt Offshore, Inc.

Location:  
Port of Iberia, LA

Business:  
Commercial Diving



### Problem

The Water Division of a major city contracted with a commercial diving company to **repair a malfunctioning valve some 700 feet underwater**. Careful inspection of the valve's condition was needed prior to repairs, requiring a fiberscope to navigate small passages.

While most fiberscope probes can be immersed in water, their control bodies cannot. Those parts must be isolated from water, along with any attachments such as video cameras and light sources. The high ambient pressure must also be factored in.

### ITI Solution

ITI engineers configured a **one-of-a-kind system**, which brings together a semi-flexible fiberscope, a video camera, and a miniature light source in a rugged watertight canister. Special provisions were built into the fiberscope to allow its internal air pressure to equalize with its environment, and the container was designed with the necessary ports and valves to balance its internal pressure to that of the deep water.

The divers were able to feed the probe of this unique device into small passages on the failed valve, and send detailed, **live video images back to the surface for evaluation**.