



AW-LAKE
PROCESS FLOW MEASUREMENT

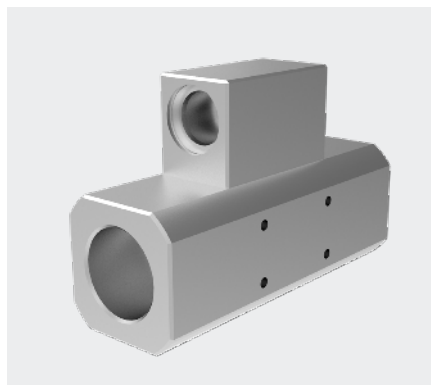
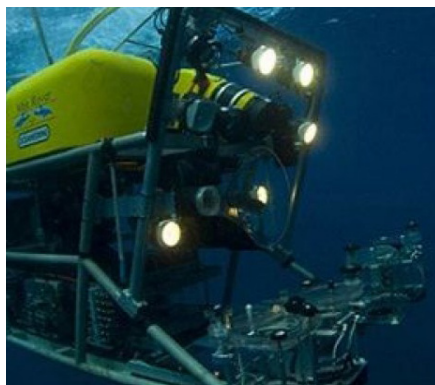


APPLICATION SPOTLIGHT

Subsea Equipment Repair - ROV's



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APPLICATION:

The customer is a manufacturer of Remote Operated Submersible Vehicles (ROV's). The common use for the ROV's is inspection and maintenance of subsea manifolds and oil recovery equipment on the ocean floor. These ROV's are equipped with different instruments and tools, depending on what function they will perform during a given period. One operation involves the test actuation of subsea valves using a flow meter to measure the amount of fluid being pumped.

PRODUCT SUPPLIED:

Subsea Turbine Flow Meters with integral electronics.

CHALLENGE:

Because the ROV must be able to manipulate the flow meter to plumb into the subsea manifold, the meter must be compact and able to withstand the direct contact with the harsh environment of the open ocean. Internal pressures of up to 10,000 psi and external pressures of 6,000 psi must be able to be maintained. The electronics must also be kept dry in a pressure-regulated environment.

SOLUTION:

Our subsea turbine meter with integral electronics was the perfect solution. The meter has a 15,000 psi pressure rating and comes in a variety of sizes to meet the flow requirements of different jobs. Access to the electronics is via a connector made specifically for subsea use which maintains a constant electrical connection to the ROV.

Adapting our standard high pressure turbine meter for subsea use was the first step in developing this solution. Special materials and manufacturing processes allowed us to ensure that the housings and process connections could withstand the saltwater environment.

RESULT:

The marinization of this flow meter has allowed the customer to make accurate readings on precision subsea equipment, without the addition of substantial weight to the ROV which was a critical factor.