

## UNDERWATER CASE STUDY



## **Customer: Qinetiq.**

Site : Marine Testing Tank, Gosport, UK. One of the largest testing tanks in the world.

**System:** Underwater Inlet Pipes from Filtration plant room, 100mm (4") Diameter. Cast Iron



**Problem:** As part of a program to upgrade the testing tank facility it was necessary to replace the valves on the southern end of the tank, these valves had served for decades and may now not function as a reliable method of containing the water in the tank.

As part of a control to mitigate the hazard of uncontrolled release of water from the tank, two stainless steel inlet plates with locking caps were laser cut and fabricated. The inlet Pipes in the southern end of the tank can only be accessed from inside the tank, the inlets are 3metres below the water line. These plates will have to be fixed to the wall and form a watertight seal to act as a large stopper.

The install was completed by a commercial Dive team.

**Solution:** Two 316 stainless steel plates were laser cut with a 316 stainless valve fitting welded to the plate.

These were fixed with mechanical anchor fixings.

The Dive team cleaned and prepared the concrete surrounding the inlet the pipes.

To seal the rear of the plates, the rear was coated with the Resimac 208 underwater epoxy, then lowered into place and mounted on the mechanical fixings.

Once the epoxy had cured, the locking caps were installed and these plates acted as a huge stopper holding 40,000 tons of water. This enabled the R2 Pipetech team to safely upgrade the Filtration supply pipe work.











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