



CASE STUDY

LLYN BRENIG RESERVOIR

Background

Glenfield Invicta replaced the existing bulkhead gate and primary gate as well as supplying a new secondary gate. The project was classified 'gold command' due to single point of isolation during repairworks. The existing bulkhead gate was holding back 250 tons of water.

The gates were designed, manufactured, and installed by Glenfield Invicta together with our sister company Orbinox. In addition, our engineering support included the provision of Computational Fluid Dynamics (CFD) analysis to ensure increased effectiveness of the design and to ensure the risk of cavitation was reduced.

Unique Challenges

The tower itself was situated in the middle of the reservoir and all works had to be carried out whilst the reservoir remained fully operational. This involved a high level of risk and had to be carefully managed and coordinated.

Solution

Bespoke large fabricated bulkhead and roller gates to enhance the safety, reliability and resilience of the scour system and upgrading the emergency draw-off system, enabling remote operation.

Specification

- Stainless Steel
- Hydraulically Operated

Size

- Bulkhead Gate = 2800mm x 3900mm
- Primary Gate = 2000mm x 2550mm
- Secondary Gate = 1800mm x 2550mm



Bulkhead being loaded onto Pontoon.



Secondary Scour Gate in position.



Primary Gate & Frame at Fat Inspection



Specialist Lifting Gear Supplied.