## Know-Howin Action

# WATER PUMPS REPAIRED AT HISTORIC RESERVOIR

#### **CUSTOMER**

Queen Mary Reservoir, Surrey

#### **APPLICATION DATE**

August 2014

#### **APPLICATION SITUATION**

Damaged pump volutes, totalling a surface area of 282m<sup>2</sup>.

#### **PROBLEM**

After years of frequent use, certain areas of the pumping equipment were suffering from cavitation damage, which in turn was seriously hindering the efficiency of the pumping system.

#### **PRODUCTS**

Belzona 1111 (Super Metal) Belzona 1341 (Supermetalglide)

#### **SUBSTRATE**

Cast Iron

#### APPLICATION METHOD

Application carried out in accordance with a modified version of Belzona Know-How System Leaflet CEP-3. Firstly, Sponge Blasting equipment was used on the upper and lower casings to remove the previous coating and create a cleanliness of at least SA 2  $\frac{1}{2}$  and produce a surface profile of no less than 75 $\mu$ m. Due to the extent of the damage, (some areas of each volute exhibited up to 50% corrosion) complete metal repairs were prescribed using Belzona 1111 followed by a protective coating of Belzona 1341.

#### **BELZONA FACTS**

Belzona 1341 was specified as it will provide long-term erosion and corrosion protection of the equipment and improve the operating efficiency of the pump. It does this using hydrophobic technology, which repels process fluids, reducing surface friction and internal energy losses via turbulent flow.

### **PICTURES**

- 1. Pump casing prior to removal of existing coating
- 2. Pump casing severely corroded
- 3. Sponge blasting in progress
- 4. Completed application









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