



## Concrete “Muff” Corrosion Protection Case Study

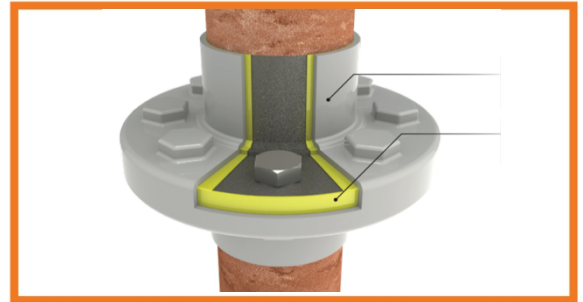
**OXIFREE<sup>®</sup>**  
METAL PROTECTION

## Concrete “Muff” Corrosion Protection



Location	Scotland
Local Environment	Electricity Substation
Date	September 2014
Condition	Dry
Total Coatings	1
Substrate Type	Concrete “Muff”
Duration	1 Day

Oxifree TM198



### Summary

Oxifree were asked to partake in a trial coating of the concrete “muffs” at the base of electricity pylons to provide an environmentally safe, long term protection to the concrete. The “muff” is a thick concrete support that bares the weight of the pylon and is the interface between the pylon and the earth. Historically, the muffs have been coated in bitumen, which is dangerous for livestock / the environment.

Polymelt 50 Application Machine



### Objective

The objective was to provide an alternative to bitumen paint currently used to encase the concrete muff and prevent further capillary action of moisture, which eventually cracks the concrete, leaving the concrete unable to load bear the weight of the pylon.

During application of Oxifree TM198



### Process

Before application, Oxifree had to obtain approval for use by the Animal Health & Veterinary Laboratories Association for the use of Oxifree TM198 within a livestock environment, which was achieved. The muff already showed signs of degradation.

Concrete “Muff” after TM198 application



### Solution

The area was excavated to a depth of 120mm around the concrete then cleaned with water only. Once dry, Oxifree TM198 was applied to the pylon upright and support beams and down onto the concrete. An application of silcon was applied to the leading edges to make tamper proof. The complete project took 4 hours.