



Environmental
Management
Services

Substation Cable Duct Sealing ROXTEC

Summary

We were commissioned by a major DNO to design and install a system to prevent water ingress into a large substation. The ducts had running water flowing through them and they had been filled with builder's foam which did not form an effective seal.

The ducts were poorly constructed meaning specialist capping plates and seals needed to be manufactured. The plates were installed in flowing water conditions and immediately prevented any further water ingress.

We were commissioned to undertake cable entry sealing works on a large substation for one of the UK's largest DNOs. They were having problems with water entering the substation, and the humidity it created was causing a risk to the switchgear. The ducts had previously been filled with expanding foam to try and prevent water ingress but the foam "seals" were completely ineffective. The water ingress was so substantial that at times water was flowing into the substation. Roxtec was chosen as the best solution to seal the ducts as it can be installed in running water conditions, where most other sealing systems cannot.



During a site survey the condition of the ducts was assessed. The ducts were of poor construction and so could not have a ROXTEC seal installed inside them. This meant that all of the ducts had to be sealed using specialist capping plates with a duct built in. All of the ducts and cables were measured so that the specialist plates could be tailor made to ensure a perfect seal. Once the plates had been manufactured the ducts and cables were cleaned and the plates were installed, immediately stopping any further water ingress.

