

# BELZONA PROVEN SOLUTION FOR CONDENSER MAINTENANCE

ID: 4364

**Industry:** Power  
**Application:** HEX-Heat Exchangers  
**Substrate:** Steel  
**Products:** \* Belzona® 2141 (ACR-Fluid Elastomer) ,  
\* Belzona® 1161 (Super UW-Metal) ,  
\* Belzona® 5831 (ST-Barrier) ,

**Customer Location:** CCGT Power Station, North Wales, UK  
**Application Date:** March 2012

## Problem

Replacing and welding new parts was not an option as hot work could cause potential stress damage to the condenser and would damage the newly installed internal lining. Poor access created further health and safety issues. Belzona were therefore approached to provide a cold bonded alternative.



## Photograph Descriptions

- \* Internal lining repairs ,
- \* One of the corroded drain pipes ,
- \* Split collar being bonded to vent pipe using Belzona® 1161 ,
- \* Completed repair to vent pipe after coating with Belzona® 5831 ,

## Application Situation

Condenser water boxes at a Combined Cycle Gas Turbine (CCGT) power station. Annually over the past 5 years Belzona® 2141 has been successfully used to carry out repairs to the internal lining. In 2012 engineers at the power station identified severe corrosion at the external vents and drain pipes which was resulting in leakage.

## Application Method

Application was carried out in accordance with Belzona system Leaflets HEX-3, 4 & 9. At areas of high cavitation, Belzona 2141 was used as a patch repair to the internal lining. Collars (curved plates) were formed and bonded with Belzona® 1161 to the vent and drain pipes. The repair area was then over coated with Belzona® 5831 to reinforce the repair and to protect against further corrosion.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015  
FS 695214  
ISO 14001:2015  
EMS 695213

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manufactured under an ISO  
9000 Registered Quality  
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## Belzona Facts

The work was completed during a planned outage in March 2012. The customer was happy with the solution, resulting in subsequent applications being carried out on the remaining three units during a second outage. The Belzona cold curing and surface tolerant materials enabled these repairs to be effectively carried out in the difficult confined spaces. These repairs have enabled the power station to continue generation with minimum time offline.

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