## Agitator Protected From Acid Attack by Belzona

|  |  |  | ID: 7795 |
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| Industry: <br> Application: |  | Customer Location: Andalucia, Spain |  |
|  | FBC-Fans, Blowers and Compressors | Application Date: October 2018 |  |
| Substrate: <br> Products: | Carbon Steel |  |  |
|  | * Belzona 1511 (Super HT-Metal), |  |  |
|  | * Belzona 4341 (Magma CR4) , |  |  |
| Problem |  |  |  |
| Concentrated sulfuric acid at elevated temperatures was causing deterioration of the agitator blades, which were being replaced every 4 months as a result. |  |  |  |



Photograph Descriptions

* 1. Damage to Blades ,
* 2. Rebuilt with Belzona 1511,
* 3. First coat applied ,
* 4. Completed application ,


## Application Situation

Agitator blades exposed to chemical attack and erosion in copper plant.

## Application Method

Application was carried our in accordance using a modified version of System Leaflet FBC-2.

## Belzona Facts

Initially the customer believed that the problem was caused by erosion, due to the concentration of suspended solids within the
fluid. They had tried a rubber coating to protect the blades, however the poor chemical resistance to the acid and temperature caused the rubber lining to fail quickly. It was concluded that erosion may not be the main cause of the damage, hence the customer wanted to trial a chemical resistant lining. As the conditions are $40 \%$ Sulfuric Acid at 80 degC , Belzona 4341 is the best choice. An aggregate was incorporated into the coating to add some erosion resistance.

