EVAPORATOR HEAT TRANSFER TUBE

ID: 9807

elite

PROBLEM

The heat transfer tube an 2 of the companies evaporators had become thin-walled and, in places, through-walled.
The lead time for a replacement was 16 weeks and the only other way to overcome the issue was to have repairs carried out by a local company. This was suggested to take 2 months and the company wanted to remove the evaporators from site to work on them at their own premises

APPLICATION SITUATION

The cost of traditional repairs were astronomical, almost to the point of the company considering replacing the whole unit. Lead time for both parts and replacement evaporators made this totally impractical. The company had 2 of these evaporators, both with the same issue. It would have run into hundreds of thousand pounds to replace them

APPLICATION METHOD

2 collars were fabricated and prepared with power tools. These were to be bonded at each end of the tube with Belzona 1161 to give anchor points for the Belzona 1984 Superwrap II application
Once these were cured, the tube was wetted out with Belzona 1984, as was the composite sheets
Application by 2 of their own engineers followed, with guidance from the Area Sales Engineer
2 wraps were considered enough for this application and all works were carried out in under 3 hours

BELZONA FACTS

Costs to make traditional repairs were between £10k and £15k. Factor in the logistics costs to move these to the repairers premises, the hire charges of other evaporators whilst the work was being carried out, downtime and inconvenience.
Also, replacement parts were sourced at a cost of £18k. This didn't include shipping or installation. There was also a 16 week lead time
*UPDATE - Engineering team exceptionally happy and delighted with the result and cost savings against other methods and solutions

INDUSTRY

General Industry

LOCATION

Derbyshire, UK

APPLICATION DATE

May 2025

PRODUCTS

Belzona 1161 (Super UW-Metal)
Belzona 1984
Belzona SuperWrap II

SUBSTRATE

Carbon steel

PHOTOS

1. Showing one of the end anchor points bonded to the tube with Belzona 1161
2. Wrapping the tube after wetting out the tube and composite wrap
3. Wrap completed
4. All layers and bespoke ends applied and revisited 3 months on. The customer is totally happy, with no leaks and completely dry floors and dry machinery,