

# Application Focus

## Erosion-Corrosion *Heat Exchangers*

Heat exchangers are susceptible to erosion damage and galvanic corrosion due to contact between dissimilar metals, commonly used in the construction of heat exchangers.

If this damage is left untreated, the operational efficiency of the system will be seriously undermined, allowing the potential for complete deterioration of components, leading to:

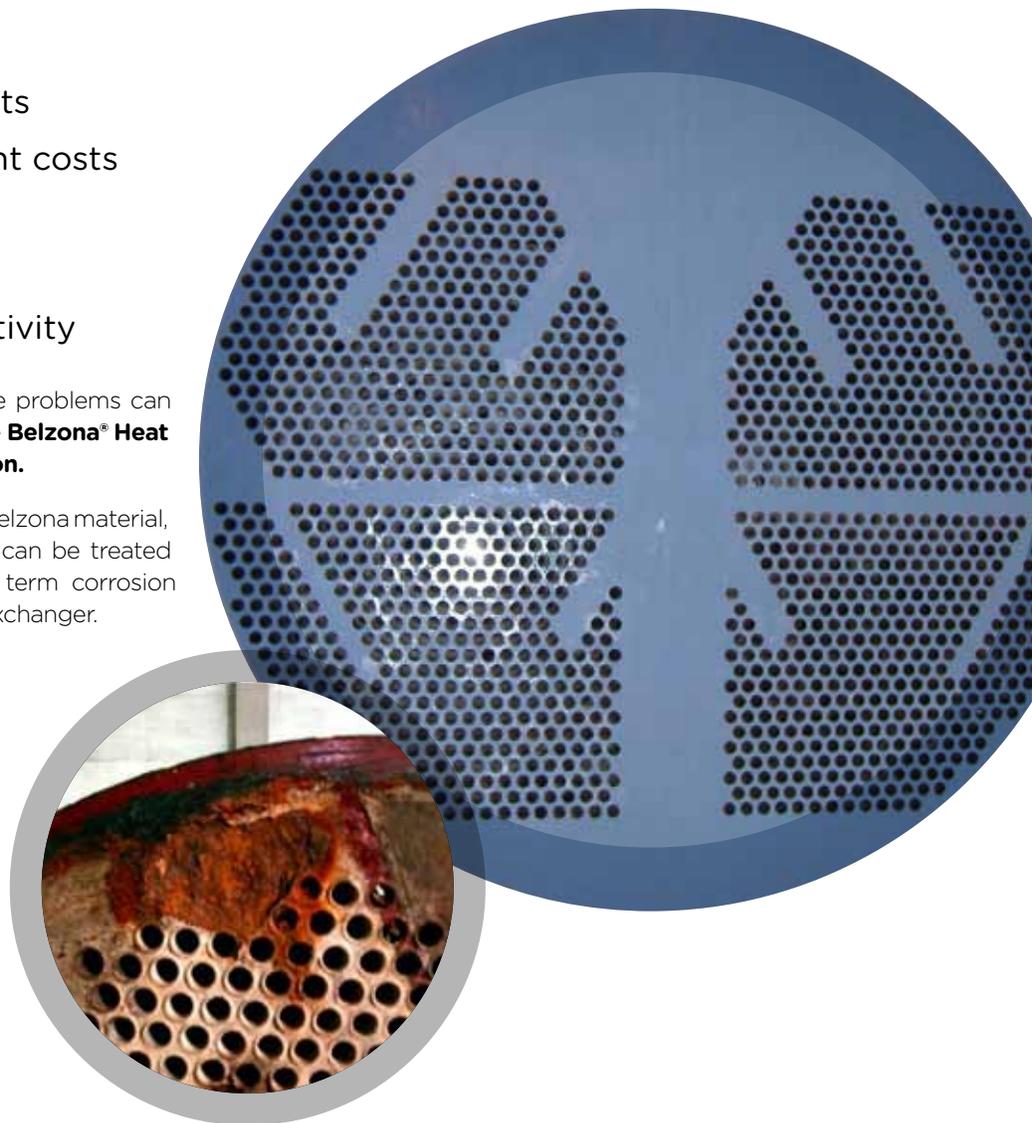
- Unplanned outage
- Increased operational costs
- Potential high replacement costs
- Reduced efficiency
- Process contamination
- Reduced thermal conductivity

The consequential cost due to the above problems can be quickly and simply prevented using the **Belzona® Heat Exchanger Repair and Protection Solution**.

By utilizing a cold-applied, cost-effective Belzona material, virtually all heat exchanger components can be treated quickly and efficiently resulting in long term corrosion protection and preservation of the heat exchanger.

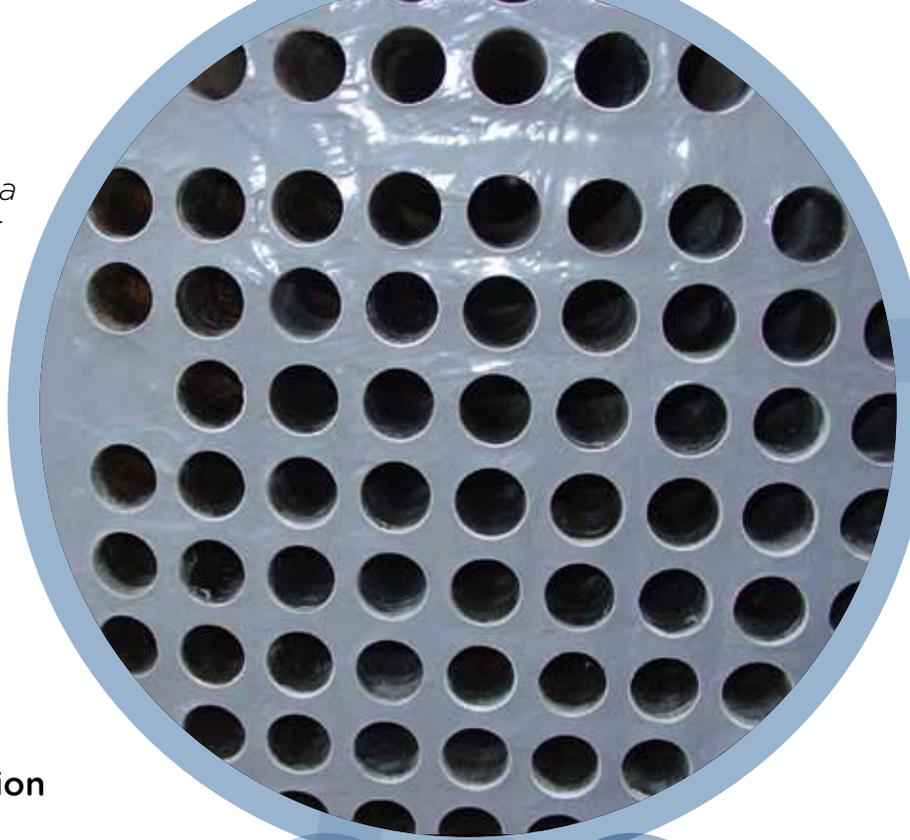
**Belzona can provide the answer to erosion and galvanic corrosion in heat exchangers that will:**

- Minimize downtime
- Reduce expensive replacement costs
- Eliminate the danger of repairs involving hot work
- Extend the life of components



# Application Case Study

“A customer was faced with a potentially high cost maintenance repair due to severe damage to multiple components within a heat exchanger. Following inspection, it was found that galvanic corrosion, coupled with erosion had caused a loss of metal thickness on the tubesheet surface. Consequently, coolant contaminated the process fluid, forced an immediate shutdown of the system.”

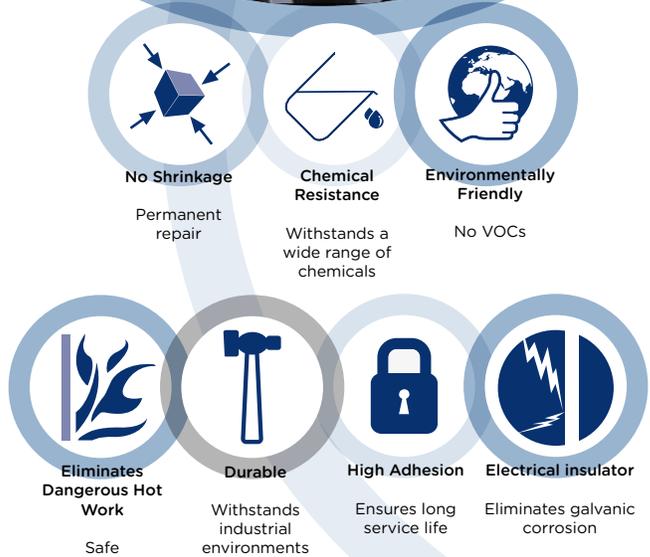
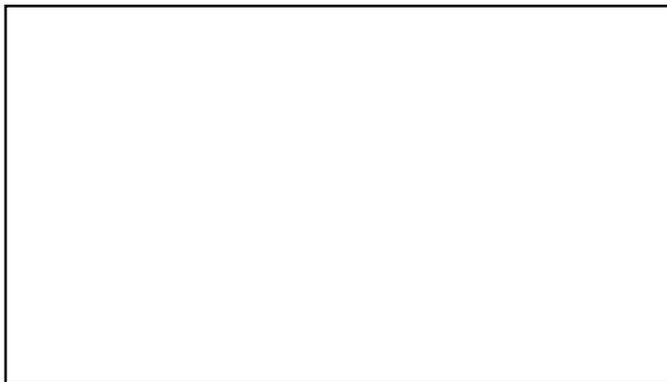


## Heat Exchanger Repair & Protection Solution

Belzona provided a cost effective solution that not only rebuilt the eroded tubesheet and sealed the leaks, but also prevented future corrosion. The electrically insulating Belzona materials isolated the dissimilar metals used in the heat exchanger construction, eliminated further galvanic corrosion.

The heat exchanger was quickly returned to service with the full supply and repair costs for this solution being a fraction of the estimated replacement costs. During a five year maintenance outage, the heat exchanger was inspected and found to be in excellent operational condition.

For more information, please contact your local Belzona representative.



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