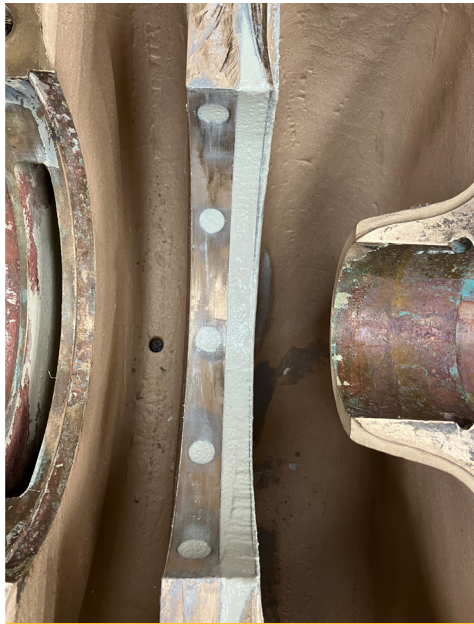




Caption



Caption



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An industrial operator handling brine and water services required urgent refurbishment of a critical horizontal split case (HSC) pump to restore performance and prevent further operational risk.

The Challenge

During operation, the pump experienced a bearing failure which caused the impeller to shift within the casing.

This resulted in significant internal damage to the phosphor bronze casing, including:

- Severe wear at the impeller landing areas
- Compromised casing integrity
- Increased risk of reduced efficiency and potential failure
- Given the aggressive nature of the brine environment, a robust and long-term repair solution was essential.

The Solution

Corrosolve delivered a comprehensive repair and protection solution, combining precision engineering with advanced coating technology.

The scope of work included:

- Installation of phosphor bronze rings in both upper and lower casing halves
- Assembly and precision machining to suit new wear rings, ensuring correct tolerances and clearances
- Rebate machining of upper and lower casing sealing faces
- Abrasive blasting of all internal surfaces to achieve the required cleanliness and surface profile

- Application of multi-directional GRP matting, wetted with L600 laminating resin, to rebuild and reinforce damaged areas
- Full internal coating using Corroglass 600 series, applied to a minimum dry film thickness (DFT) of 1250 microns

The Results

- Fully restored casing integrity and functionality
- Improved resistance to corrosion and chemical attack
- Enhanced pump efficiency through correct clearances and surface finish
- Extended service life of the asset in a highly aggressive environment

Key Benefits

- Cost-effective alternative to full pump replacement
- Engineered repair tailored to operational conditions
- Long-term protection using high-performance coating systems
- Reduced risk of future failure and unplanned downtime