

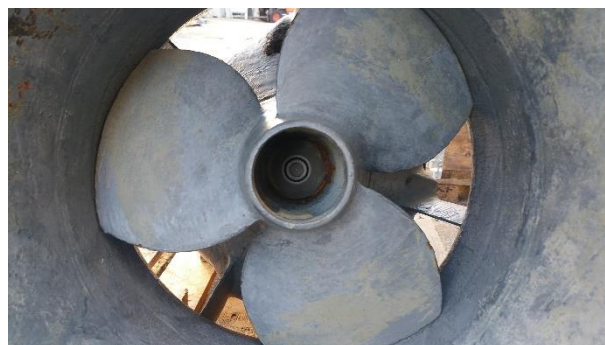
Title: Paper Mill Receives Welcome Pump Protection
Subtitle: Polymeric Repair Materials and Coatings Extend Maintenance-Free Operation



Sludge pump lifespan keeps on extending

Regardless of the pulping methods, paper mill pumps are put under immense strain due to the transfer of viscous material throughout the pulping process. Together, the sludge and slurries combine a high solids content, copious amounts of entrained air and often processing chemicals, resulting in issues associated with erosion, corrosion and chemical attack. In 2010, at an Italian paper mill, the casing and internal components of a cast iron submersible sludge pump were suffering from particular problems relating to these effects. In fact, the pump was barely lasting a maximum of two years in service before requiring major overhaul and replacement.

Overall, this was costly, not only in terms of replacing the equipment but the downtime that was associated with dismantling and installation of new pump components. In search of an alternative, the paper mill contacted Belzona's representative in Italy, BS srl, looking for a viable solution for their consistently failing pumps. After careful selection, a combination of erosion-corrosion resistant systems was chosen to complete the application. Initially rebuilding the metal loss in the pump using Belzona 1311 (Ceramic R-Metal), the pump was internally coated with Belzona 1321 (Ceramic S-Metal). This coating offered significant erosion-corrosion protection, whilst simultaneously providing a barrier against chemicals used in the pulping processes. Finally, the pump was coated externally using Belzona 5811 (Immersion Grade), designed to preserve equipment operating under immersed conditions from corrosion damage.



After six years in service, the pump components were still in excellent condition

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Originally coated in 2010 with Belzona, six years on the customer opened the pump for mechanical maintenance. Throughout its six-year service life, the pump faced zero downtime due to Belzona erosion-corrosion protection and impressively, the coating was found to be in excellent condition. However, it was decided to refresh the coatings in order to prepare the pump for more years of service in sludge; therefore, the original coating was roughened before applying a new layer on top. Not only did this continue to extend the pump's in service life further, saving the company replacement costs, but ensured that the equipment was protected in the long term against the dangers of erosion-corrosion.



Pump components recoated to ensure functionality continues

Enzo Arrabito, CEO for BS srl, commented “This type of application is one that we complete frequently, on small, medium and large scale components. The pump in question was suffering immensely from erosion-corrosion damage; therefore, the client expressed their satisfaction that the lifespan of the pump could be extended significantly through the use of a polymeric solution. This not only reduced their maintenance costs, but it allowed them to achieve greater efficiency from their equipment.”

Word Count: 442 (Including Captions)

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Notes to Editor;

About Belzona:

- Established in 1952, Belzona has pioneered innovative polymer technology that has revolutionised industrial repair and maintenance procedures.
- Belzona is a leading company in the design and manufacture of polymer repair composites and industrial protective coatings for the repair, protection and improvement of machinery, equipment, buildings and structures.
- At Harrogate, the full Belzona product range is manufactured to stringent quality and environmental control guidelines complying with the requirements of ISO 9001:2008 and ISO 14001:2004.
- Belzona has over 140 Distributors in more than 120 countries ensuring not only the availability of Belzona materials, but also specification support, project management, application and supervision services. Distributorships and their teams are supported by Belzona Corporate offices in Europe, North America and Asia.

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