

# Devcon Wear Guard® Fine Load™ & Devcon Brushable Ceramic Restore Pulp & Paper Pump To Prevent Replacement

Pumps in the pulp and paper industry are involved in almost every phase of production. From the initial stages of converting wood chips to a slurry to producing final paper products, various pumps are used to increase throughput, enhance the quality of the paper, reduce costs, and save time. Between centrifugal pumps, submersible pumps, and various process pumps, there are also slurry pumps that are designed for high wear resistance as they are used for transporting very abrasive process slurries. When one of these essential pumps is damaged, efficiency is reduced in time and maintenance costs for such repairs accrue.



Damaged pump

## Problem:

A customer's pump and pump housing showed extreme wear resulting from abrasive paper pulp slurry. A new pump was estimated to cost around €50,000, not including delivery cost and replacement time. Naturally, the customer turned to repair options, but with structural damage and limited opportunity for downtime, repairs needed to be quick, easy to use, and effective in both restoring the pump and preventing further abrasive wear.

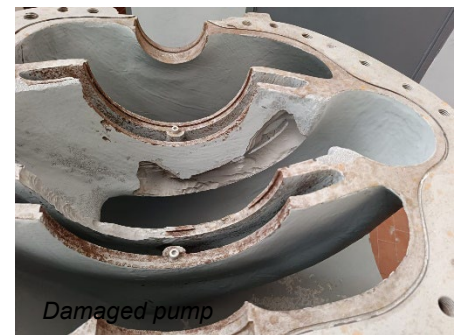


Having previously used competitive epoxy coatings, the customer reported that the competing products were too complex requiring technical support for their team to use, and the assistance provided was not satisfactory.

## Solution:

**Devcon Wear Guard Fine Load and Devcon Brushable Ceramic rebuilt the missing metal and resurfaced internal walls for maximum abrasion prevention and pumping efficiency.**

- After the pump was cleaned and abraded to remove all contaminants and uncover all the worn and corroded areas, it was grit blasted to Sa 2 ½, roughness of 75-125 microns (3 to 5 mils) to ensure a good surface profile for product adhesion.
- Using support wire mesh, Devcon Wear Guard Fine Load was mixed and applied to rebuild where the pump was missing large sections of metal. The coating was used to repair and protect the equipment from high wear particulates.
- After the functional cure of 6-8 hours, a coating of Devcon Brushable Ceramic compound was applied to all internal surfaces to ensure low friction and reduce sliding wear. For further protection and to extend longevity, the pump exterior was coated as well.



Damaged pump



Devcon Fine Load applied to abraded pump internal walls



## Project Outcome:

### Cost-Effective Repair Solution

With a €50,000 replacement cost, repairing this slurry pump with Devcon's proven epoxy coatings provided significant savings. The frequent abrasive wear to these pumps creates extreme damage that can mean high maintenance or replacement costs. Because the Devcon products are high performance, the repair work will extend the life of the pump at a fraction of the replacement cost.

### Outstanding Technical Support

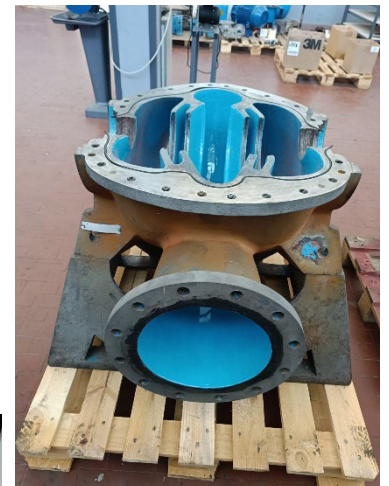
ITW Performance Polymers provides expert technical knowledge of the products and many applications. For this customer new to using the Devcon brand, they turned to the Devcon technical experts. Not only did the team meet expectations, but they also ensured timely assistance with a thorough knowledge of the Devcon products and best practices for this pump coating application, helping the customer achieve their desired output.

### Highly Durable Coatings

Devcon epoxy coatings provide long-lasting protection thereby extending the pump and pump housing life, even amid high wear. Devcon Wear Guard Fine Load and Devcon Brushable Ceramic successfully delivered on protecting equipment and withstanding the extreme environment in the pulp & paper facility.



*Devcon Fine Load applied to abraded pump internal walls*



*Devcon Brushable Ceramic lining interior walls*



*Devcon Brushable Ceramic lining interior walls*



*Pump and housing assembled and ready to go*

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