

Repairing and Protecting Pumps with Polymer Composite Coatings

The need to protect pumps is a common problem.

Pump efficiency and performance will diminish over time. A common problem for maintenance engineers is erosion and corrosion damage to pump impellers and casings. While typical pump repair procedures include welding or replacement, these solutions are normally expensive and require significant down-time.

Since pumping systems account for almost 20% of the world's electrical energy usage, resurfacing to protect pumps and improve pumping efficiency with ENECON's polymer systems can lead to substantial savings in energy use and associated greenhouse gas emissions. The direct energy cost savings to individual clients are also readily apparent.

Significant improvements in pump efficiency on horizontal split-case pumps have been shown with ENECON High Performance Polymer Composites. Efficiency gains of 5% to 10% using ENECON's pump coating have been noted in various studies.

Polymer composite pump coating costs a fraction of replacement.

CeramAlloy™ is a 100% solids, high performance, ceramic-filled, polymer composite system that can be used to rebuild, resurface and protect pump surfaces that have been damaged by erosion and corrosion, i.e. impellers, casings, wear ring seats, etc..

- **CeramAlloy™ CP+ AC** is a two component, 100% solids, trowelable (paste), ultra-high performance, polymer system that can be used to rebuild damaged pump components back to their original shape and contour.
- **CeramAlloy™ CL+ AC** is a two component, 100% solids, brushable (liquid), high performance polymer system that can be used to provide outstanding erosion and corrosion protection on all pump wet areas. This high gloss protective coating yields a surface that has been shown to significantly improve pump efficiency when compared to uncoated pumps.
- **CHEMCLAD® XC** is also a two component, 100% solids, epoxy novolac, ultra-high performance, chemical resistant polymer system that provides unrivaled protection against some of the most aggressive chemical environments including 98% sulfuric acid. It is also approved by NSF for potable water applications.

Using a high performance polymer composite pump coating to rebuild and protect pump surfaces can provide 'better-than-new' performance with significantly improved efficiencies at a fraction of the cost of traditional repair and replacement procedures.

METALCLAD® CeramAlloy™ CP+AC, CeramAlloy™ CL+AC and CHEMCLAD® XC are manufactured by, and available from, ENECON® Corporation. ENECON® Fluid Flow Systems Specialists can help you **protect pumps** with your specific application and requirements. For more information on how you can protect your industrial investment, visit our website at www.enecon.com, or call us at 516-349-0022 or toll free 888-4-ENECON® (36-3266).

