

PLANT & MAINTENANCE



Adhesives: vital speed and
convenience helps powerboat
racing team



Electronic control adds
sophistication and ease of use to
hydraulics systems

MAINTENANCE & ASSET MANAGEMENT JOURNAL

Using partial discharge to identify
faults in high voltage networks

Steam turbine oil challenges, part 2

SITE, BUILDINGS, ENERGY & WORKS MANAGEMENT



Industry warms to CHP

How to work safely alongside
collaborative robots



Save thousands by repairing instead of replacing p4



Specialist materials handling manufacturer Combilift has
opened its new 46,500m² factory – the largest manufacturing
operation under one single roof in the Republic of Ireland.

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LIFTING INNOVATION www.combilift.com

Save thousands by repairing instead of replacing

Replacement of plant and equipment is a costly business. Not only does stoppage result in lost time and money, but replacement parts can be prohibitively expensive or even just no longer manufactured. When budgets are tight and replacement is not an option, overhaul or repair should be considered as an economical alternative. Often corrosion, leaks and damage can be repaired at a fraction of the cost of replacement, and refurbishment can extend the lifespan of equipment by many years.

complete the repair and make it permanent. The operator was able to make the repair quickly without the need for a specialist outside contractor, making this method extremely cost-effective against the alternative of shutdown and replacement.



The blue Ceramic Supergrade repair can be seen between the insulator and flange

To help keep ageing equipment and machinery operational, Sylmasta Limited manufactures high performance polymer and composite repair systems, including pipe repair composites, metal repair compounds, protective coatings and adhesives.

Sylmasta products have been used around the world to save customers time and money, such as when the high voltage bushing (HVB) on a hydrogen cooling generator developed a crack in its porcelain insulation, causing it to fail a 40psi pressure test. The generator was operated by the Puerto Rico Electric Power Authority (PREPA) and the HVB was 50 years old. There was no replacement available and fabrication of a new HVB was estimated to cost at least \$25,000, with a protracted lead time.

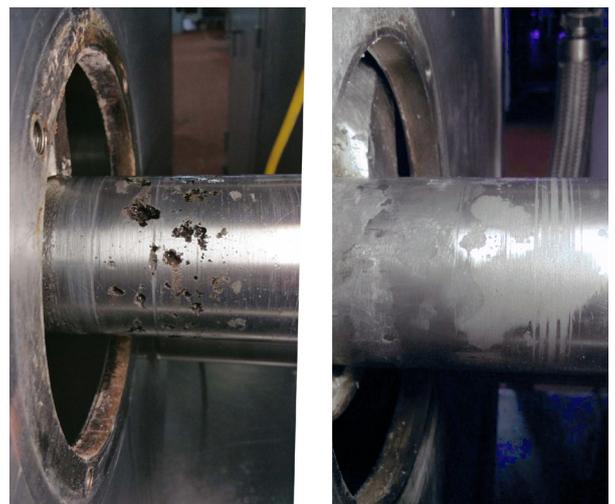
PREPA decided instead to use Sylmasta Ceramic Supergrade epoxy repair compound. The Ceramic Supergrade filled and sealed the crack, the gaskets were replaced and the HVB passed pressure testing and returned to service, saving PREPA thousands of dollars – and ensuring one more generator was available in the aftermath of Hurricanes Irma and Maria.

Pipe leaks are another common problem and often shutting down a pipeline for replacement is not possible – either the process is too critical or a valve has seized. When this happens, it is possible to repair the pipe, even if the flow cannot be stopped. In one case, a pipeline carrying contaminated water to a treatment plant was cracked when it was struck by equipment being moved nearby. The site operator could not shut the line down so Sylmasta Wrap & Seal tape was used to seal the live leak and stop the flow. This was then overwrapped with SylWrap composite repair bandage to



During and after the live leak repair of a pipeline

Pitting and scoring to shafts on machinery is another common area where refurbishment is a cost-effective alternative to replacement. In the factory of a large, well known bread company one of the mixer shafts was badly pitted and this was causing problems with the seal. The machine was very old and the owner did not wish to dismantle the machine, to avoid creating more problems. Instead, the damage was filled using Sylmasta Titanium Supergrade epoxy repair paste, which was specified because of its high compressive strength of 130MPa. The customer was extremely pleased with the repair, commenting that it was quick and cost effective with minimal downtime.



Before and after the repair to the mixer shaft

Every repair or refurbishment is unique and Sylmasta offers technical support and advice to its customers, wherever they are in the world.

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