

# Application Focus

## Efficiency Enhancement *Fluid-Handling Equipment*

Typically, the energy cost of a pump represents the largest portion of its lifetime costs - much more than the capital cost. In fact, operating costs can represent as much as 95% of the overall lifetime costs of the pump. Therefore, an improvement in energy efficiency will represent a significant reduction in lifetime costs.

Deterioration in service can reduce efficiency, leading to as much as 10-15% extra energy consumption with the potential for other costly implications including:

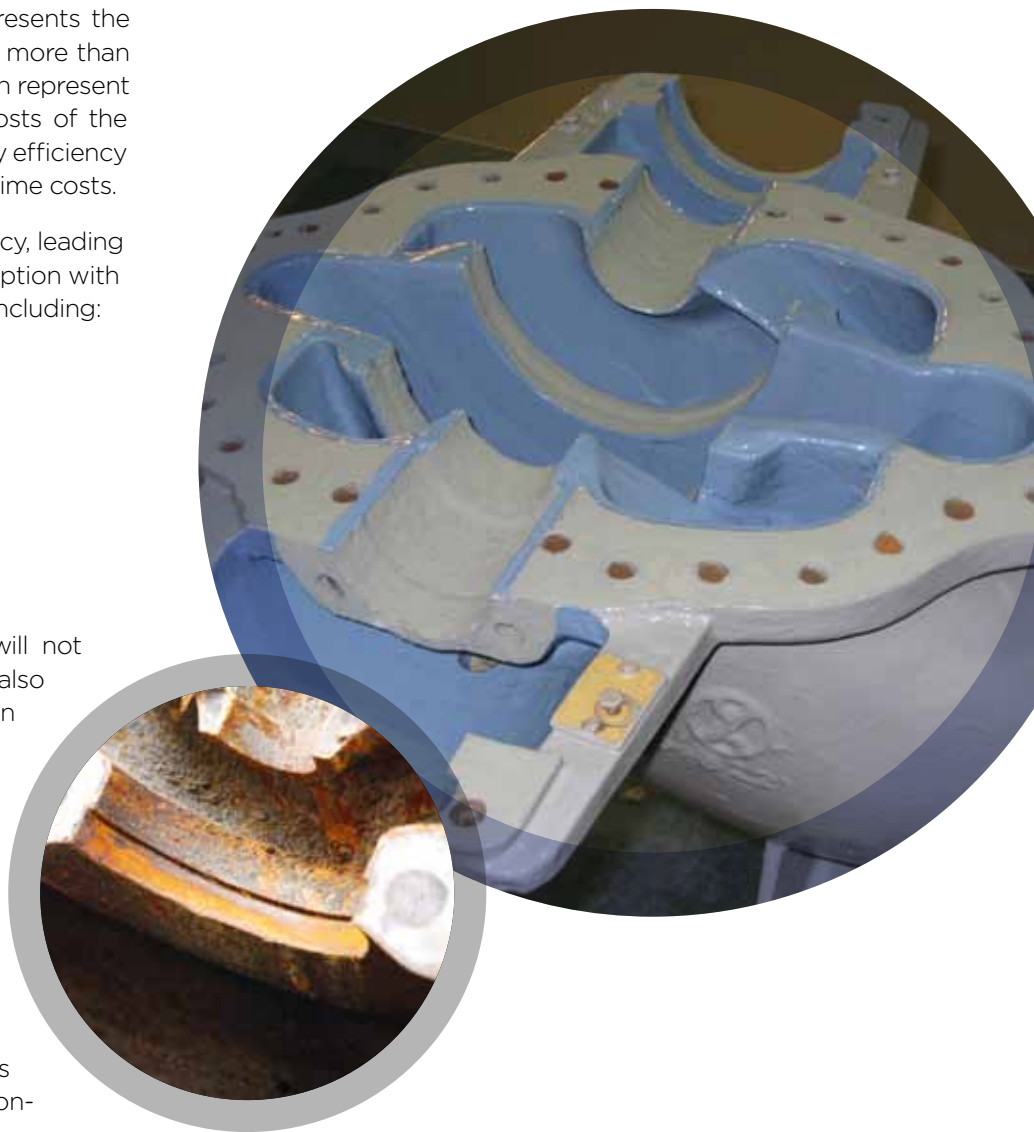
- Increased operating costs
- Reduced head
- Shorter service life
- Reduced flow

The **Belzona® Supermetalglide System** will not only restore pumping efficiency, but also reduce the rate of future deterioration significantly. More importantly, it will increase the efficiency of a pump over its “as new” condition giving a rapid payback in reduced energy costs.

By repairing worn and damaged equipment, or protecting new pumps with a Belzona® Supermetalglide system, it will have an immediate effect on performance and operating costs. Overall, it provides years of power savings in addition to high performance erosion-corrosion protection.

Belzona can provide the answer to erosion-corrosion in fluid handling equipment which will:

- Improve efficiency and performance
- Minimize downtime
- Increase life expectancy
- Eliminate expensive replacement costs



# Application Case Study

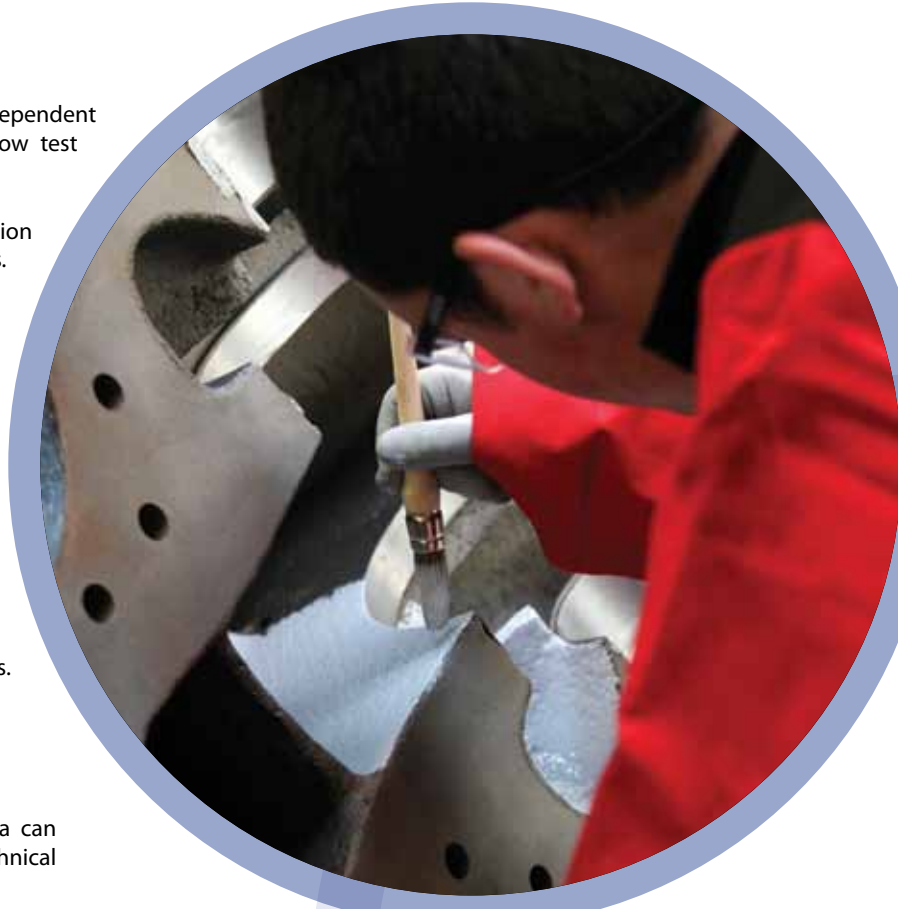
Belzona® 1341 Supermetalgilde was tested under strict independent laboratory conditions utilizing the most up-to-date fluid flow test facilities of the National Engineering Laboratories (N.E.L.).

The test vehicle chosen was a single stage, end suction centrifugal pump with 10-inch suction and discharge branches.

The uncoated pump, running at 1,300 rpm, was found to deliver 5.55 MGD (875 m<sup>3</sup>/hr) at 86.9 ft (26.5 meters) head with an overall peak efficiency of 83.5%.

Testing of a Belzona® 1341 Supermetalgilde coated pump gave a maximum 6% increase in the peak efficiency, offering a power reduction of 5.1 kW at duty point. Assuming a 5,000-hour operating cycle per annum, the power saving over this period would amount to 25,400 kWh.

Belzona® 1341 Supermetalgilde has been proven to increase pump efficiency across its operational range, while maintaining its original head / flow characteristics.



## Local Service and Technical Advice

Through a network of trained Technical Consultants Belzona can provide a full 24-hour on-site service, with guidance and technical advice on the Belzona® Supermetalgilde System.

Backed by a specialized Belzona global engineering team, the Technical Consultant will diagnose the problem, recommend the solution, and supervise the application, with training for on-site maintenance personnel also available.

## QUALITY PRODUCTS - TECHNICAL SUPPORT

The Belzona product range is manufactured through stringent quality and environmental control guidelines complying with the internationally recognized requirements of ISO 9001:2008 and ISO 14001:2004. Belzona has a global distribution network of over 140 Distributors operating in 120 countries. Local support is provided by trained Technical Consultants who will diagnose the problem, recommend the solution, and provide 24-hour on-site application supervision.

For more information, please contact your local Belzona representative.



<b>No Shrinkage</b>	<b>Efficiency Enhancement</b>	<b>Environmentally Friendly</b>	<b>Durable</b>
Permanent repair	Increased performance	NO VOCs	Withstands industrial environments

<b>Potable Water</b>	<b>Eliminates Dangerous Hot Work</b>	<b>High Adhesion</b>	<b>Hydrophobic</b>	<b>Smooth</b>
Certified to ANSI/NSF Standard 61	Safe	Ensures long service life	Low surface tension	Reduced turbulence



For further detailed information refer to:  
 Belzona® **Product Specification**  
 Belzona® **Instructions For Use**  
 Belzona® **KNOW-HOW In Action**

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