



DISCUSSION 360°

3 BENEFITS

**OFFERED BY
BELZONA
PRODUCTS FOR
INDUSTRIAL PUMP
APPLICATIONS**

DP035



HAYLEY

DEXIS

HAYLEY DEXIS

BELZONA COATINGS FOR INDUSTRIAL PUMPS

Industrial pumps are costly equipment to run and maintain as they often require substantial capital investment and they consume significant volumes of power. They also operate within challenging environments that leave them prone to problems such as erosion, corrosion, and chemical damage. High-performance polymeric repair composites and protective coatings from Belzona, a global leader in the design and manufacture of these products, are proven to help negate these costly elements of operating pumping assets.

Here at HAYLEY 247 DEXIS, the mechanical engineering services division of HAYLEY DEXIS, we are proud to have a dedicated Belzona-approved coating centre within our 35,000 sq. ft. Dudley facility. This gives us a controlled environment to apply WRAS-approved Belzona coatings to our customers' damaged pumps. This has proven to be a highly successful and popular service as part of our overall pump refurbishment offering which includes repairs for all pumping equipment, a state-of-the-art testing facility, and dynamic balancing capabilities.

Belzona celebrated its 70th anniversary in 2022, making it a long-established and trusted solution. It's the main benefits of Belzona coatings that we explore here.

1. REDUCE CAPITAL EXPENDITURE

There is no getting away from the fact that industrial pumps are expensive pieces of equipment.

By opting to repair, if economically viable to do so, instead of purchasing a replacement for a damaged pumping asset, capital expenditure (Capex) can easily be reduced. In some cases, customers have saved in excess of ten thousand pounds by choosing to have their pumps refurbished with us, rather than buying a new unit.

Replacement of pump components also requires a large investment, and conventional welding and fabrication repairs aren't always feasible. By applying a product from the Belzona range of paste grade composites, rebuilding of pitted and worn wear clearances, eroded cutwater profiles, and ring seals on end casings, is possible.

Products from the Belzona 1100 Series and 1300 Series help to prevent galvanic and uniform corrosion, and slow the effects of erosion and cavitation. This process is exceptionally cost-effective when compared to the expense of

replacement units or even physical repair work, representing an immediate cost-saving.



Belzona coatings are applied by experienced engineers in a controlled environment at our Dudley workshop.

2. EXTEND SERVICE LIFE

Belzona protective coatings offer a durable and corrosion-resistant layer to defend both internal and external areas of pumping assets from the harmful effects of erosion and corrosion. By coating fluid-flow passageways, and pump casings with Belzona, the challenges associated with pump maintenance such as pressure and efficiency losses and reduced flow rates, can be tackled at their very source.

Rough surfaces within pump assets, caused by erosion/ corrosion, is a major problem as it leads to impingement, where the turbulent action of the liquid bombards the equipment and further accelerates the process of corrosion. This turbulence also gives rise to cavitation, generated by the implosion of fluid bubbles within the liquid which results in a severely pitted surface.

All of this activity negatively affects the efficiency of pumping systems, and also cuts short their expected service life. When your pumps are running efficiently, and are better protected from the stresses that corrosion/erosion and cavitation cause with a coating of Belzona, their output can be better relied upon and maintenance intervals extended.

“

BELZONA 1341 HAS AN ULTRA-SMOOTH, HYDROPHOBIC SURFACE, AND IS CAPABLE OF IMPROVING EFFICIENCY BY 20%...

”

3. IMPROVE EFFICIENCY

The smooth surface finish provided by Belzona coatings enables an improved flow of pumped material, which in turn improves the overall hydraulic efficiency of the system as less energy is required to move product through it.

It is estimated that worn and pitted components reduce pump efficiency by up to 20%, a significant amount given the fact that around 85% of an industrial pumps' total cost of ownership is accredited to energy costs alone. This 20% figure also represents an opportunity for improvement in which Belzona products excel.

For example, Belzona 1341 (Supermetalgilde) has an ultra-smooth, hydrophobic surface, fifteen times smoother than stainless steel, and is capable of improving efficiency by up to 20% on refurbished assets and even 7% on new equipment. Thanks to improved hydraulic efficiency, customers opting for a pump

refurbishment with Belzona coating can enjoy dramatic energy savings, reducing total cost of ownership and providing a rapid return on investment.

A reduction in the operations' carbon footprint is another welcome bonus to be enjoyed here and is always something that is valued by our customers who are progressively implementing environmental initiatives.

The Belzona product range is manufactured through stringent quality and environmental control guidelines complying with the internationally-recognised requirements of ISO 9001:2008 and ISO 14001:2004. Belzona 1341 (Supermetalgilde) is suitable for contact with potable water as it is certified to NSF/ANSI Standard 61 and WRAS.

CONTACT US!

Speak to your local branch today to enquire about our pump refurbishment services.

You can find their details by using our online Branch Finder tool:

www.hayley-group.co.uk/branch-finder



HAYLEY

DEXIS