

Belzona Gives Better Protection on External Lining of Water Well Pump

ID: 9794

Industry: Oil & Gas
Application: CEP-Centrifugal Pumps
Substrate: Carbon steel
Products: Belzona 5821

Customer Location: RAS LAFFAN INDUSTRIAL CITY, QATAR
Application Date: September 2022

Problem

The newly fabricated water well pumps has been coated initially with a red epoxy primer, it has been done on the previous pumps used by Client, top coated with a undisclosed epoxy type of coating. After a month in service, the coating was promptly deteriorated in which the metal surface was exposed in a harsh environment during the process.



The newly fabricated well pump coated with red epoxy primer.

Using vapour blasting, the epoxy primer is being removed and metal surface was exposed.

Belzona 5821 coating application was done in 3 coat system to achieve the required thickness of 400-500 microns.

Belzona 5821 application was completed with a final coat in slate grey.

Application Situation

The Belzona Ceramic Coating recommendation was proposed in order to withstand the harsh environment in which the pump is being exposed. Abrasion is the main cause of the deterioration of the previous applied epoxy coating. Client accepted the offer due to capability of ceramic coating to resist abrasions and foreign objects hitting the surface during the process that the coating is tough enough to survive for a longer period of time and moreover gives a better efficiency of the water pumping flow and eliminate downtime by avoiding the frequent coating replacement.

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ISO 9001:2015
FS 695214
ISO 14001:2015
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Application Method

1. The water well pump was initially blasted in accordance with Belzona guidelines of Surface Preparation procedure written in the IFU (Instructions for Use) which is to provide a required Cleanliness Standard of SA 2.5 with a minimum of 75 microns surface profile.
2. Belzona 5821 coating application was done in accordance with System Leaflet CEP-4 provided with an approved method statement. The coating was applied by manual application by stiff bristled brush in a thin layer per coat with maximum thickness of 150 microns only to maintain the smoothness of the coating being applied preventing it from sags occurrence.
3. Three-coat system was done to achieve the required thickness of minimum 400 microns but not more than 500 microns.

Belzona Facts

Belzona 5821 is a newly innovated product which is ceramic filled epoxy coating to provide a tougher protection against abrasion attack.

The productivity rate is more higher compared to other type of coating due to it's very low viscous property.

A liquid type coating which can provide ease of application that can be applied by spray, by roller or by brush.

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