

WATER SUPPLY SAVED BY BELZONA

ID: 6096



PROBLEM

Sealing surface repairs seemed very difficult because of precision needed to seal flat plate heat exchangers within the distillation plant. Ship's schedule did not allow enough time for backing plate overhaul. Basic instruction assistance was provided by Belzona consultant and allowed ship's force engineers to complete rapid, permanent repair and get the water maker back in service. Soft backing plate coating failed on sealing surface and prevented double face rubber gasket from sealing sea water flow in a Alfa Laval Flash Type sea water Distiller.

APPLICATION SITUATION

Ship's potable water supply was reduced by half for over 8 months by a leak.

APPLICATION METHOD

The application was carried out in accordance to a modified version of Belzona Know-How System Leaflet ENC-6 Repair of Erosion of Ports with FORMING Technique. Former was created matching the required outside dimension. Release agent was applied to former after preparing substrate by hand with coarse sand paper. Belzona 1111 was applied to bore of damaged area and smoothed off with 90 degree side of application tool. Former was removed after a few hours and sealing surface dressed by draw filing.

BELZONA FACTS

With only a small amount of Belzona 1111 and release agent a costly resurfacing effort of the backing plate and continued loss of water production for ship was prevented. Savings are not just in expense but the difficulty of traditional repairs requiring shipyard services, rigging heavy components, scheduling around sailing schedules and inconvenience to crew. New skill was added to the ship's engineering crew.

INDUSTRY

Marine

LOCATION

Military Research Ship

APPLICATION DATE

May 2016

PRODUCTS

Belzona 1111 (Super Metal)

Belzona 9411 (Release Agent)

SUBSTRATE

Mild Steel with soft synthetic coating

PHOTOS

1. Eroded bore in backing plate
2. Former in place
3. Square edge of sealing surface restored
4. Repair complete and ready for reassembly

For more examples of Belzona Know-How in Action, please visit khia.belzona.com

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