

## Belzona 1321 Ceramic S

**Pump: Rotary Drum**

**Industry: Tannery**

**Medium: Oil /Leather**

The bearing location had worn due to the bearing taper sleeve spinning and cutting in to the shaft



**Drum**



**Wear to shaft**

The customer could not afford to remove the equipment from his process as it could not be shut down also the cost to remove the equipment was high due to the size of the drum  
PSRG visited site to establish a quick cost effective solution which did not involve removing the machinery from site

We advised that the shaft could be repaired by using Belzona polymeric

The following work was undertaken

Prior to our Belzona technicians attending site a split mould was fabricated. The internal bore was machined to the required size of the bearing sleeve diameter

The shaft surface was ground to remove surface contaminants and remove metal

A profile was then cut into the shaft using the Belzona MBX tool which will leave a surface profile of 50 microns



**MBX tool cutting profile**



**Manufactured mould set in to position**



**Belzona being injected**

The mould was then treated with release agent and fitted to the shaft. Once all setting and shimming had been carried out Belzona 1321 ceramic s was then injected into the mould. Once product escaped through escape holes on the opposite side the void had been filled

The shaft was then left to cure. Once cured the mould was removed leaving the bearing sleeve location repaired

The above work was carried out over a period of two days and avoided costly repairs by taking the drum out of service

We have since repaired two further shafts for the customer all of which remain in service

