

## BELZONA EXTENDS LIFE OF MIXER BOWLS FROM ENGINE CASTING PLANT

### CUSTOMER

Engine casting plant, Windsor, Ontario

### APPLICATION DATE

Since November 2009

### APPLICATION SITUATION

Mixing containers used to blend silica sand and phenolic resin, the result of which is then used to make V6 engine casings for international automobile manufacturers.

### PROBLEM

Inside surface of bowl was being eroded by the sand mixture. The bowl measures approximately 19 inches in diameter by 27 inches in length. The inner surface was being eroded by 1/4 inch during a 6 month period. The mixers handle up to 5.5 tonnes of sand per hour.

### PRODUCTS

Belzona® 1812 (Ceramic Carbide FP)

### SUBSTRATE

Carbon steel

### APPLICATION METHOD

Application was carried out in accordance with Belzona Know-How System Leaflet SHM-13. The inner surface was machined to remove approximately 3/16 of an inch of material to allow for build up of Belzona® 1812 which was applied by hand using top flange and lower wear plate to control thickness.

### BELZONA FACTS

Customer had previously tried welding 8 inches of bowl length with Tungsten at a cost of \$9000. With Belzona they were able to repair the full stroke length of 24 inches in the mixer for \$5400. Each bowl is estimated to cost \$13000. Bowls that were normally lasting less than 6 months have lasted 18 months with only minor repair to the Belzona lining required.

### PICTURES

1. Working mixer bowl
2. Inner bore of worn mixer
3. New mixer bowl after machining
4. Completed application of Belzona® 1812



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ISO 9001:2008  
Q 09335  
ISO 14001:2004  
EMS 509612

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