

## Fan Impeller Refurbishment



### PROBLEM

The carbon steel impeller of this dust extraction fan had been subjected to heavy wear as a result of the very aggressive operating conditions. The fan is used to extract gas with abrasive iron dust.

This steel company had intended to replace the worn impeller with a stainless-steel impeller at a cost of over \$40,000. Instead, high performance ceramic repair and resurfacing compounds were used.

### SUBSTRATE

Steel

### PRODUCTS USED

[USI Universal Cleaner](#)

[RESIMAC 201 Ceramic Repair Paste](#)

[RESIMETAL 202 Ceramic Repair Fluid](#) (2 colors)

### SOLUTION

All loose material was scraped away. The surface of the impeller was degreased using the [USI Universal Cleaner](#) and blast cleaned to a minimum industry standard of NACE 2.

Our multi-purpose [RESIMAC 201 Ceramic Repair Paste](#) was used to rebuild the deeply pitted areas prior to the application of two coats of [RESIMETAL 202 Ceramic Repair Fluid](#).

### [RESIMETAL 202 Ceramic Repair Fluid](#)

is a solvent-free epoxy coating which provides a smooth, low friction finish as well as optimum levels of physical and mechanical strength, and superior resistance to erosion and corrosion.

Even after four years of service, the client is still very pleased with the application and the substantial cost savings made. The total cost of refurbishment amounted to just over \$1,500 in material plus the plants own maintenance team.