







This 13.5 inch diameter pump shaft was brought into the central repair facility of a large Northeastern utility when it was found to be badly scored.

Although the facility has used ENECON solutions for many years, they had not yet carried out such a repair on a shaft this large. Bill Woods, VP -Engineering for ENECON North East, was called in to advise on the suitability of DurAlloy for the repair.

The shaft was put on the lathe and a rough "screw thread" pattern was machined into the repair area. To insure that there were no low spots in the DurAlloy as it was applied, sufficient thicknesses of tape were put on the shaft just outside the repair area to serve as a thickness guide for the DurAlloy build up.

DurAlloy was applied with the lathe turning slowly to draw the material from the applicator. The initial material was pressed in well, followed by additional DurAlloy to overbuild the surface and allow sufficient material for machining. Using the tape at the ends of the repair area as a guide, a straight edge was then used to insure that there were no low spots in the DurAlloy and also to leave a uniform overbuild to facilitate the subsequent machining operation.

By using heat lamps to accelerate the cure, the DurAlloy could be machined after about one hour. The excess material was machined away - with the final pass of the cutting tool removing only a few thousandths of material, followed by polishing with an emery cloth to yield the desired finish.

MT-032

The DurAlloy proved itself not merely suitable for the repair but also the fastest, most cost-effective solution. The entire procedure was accomplished in just one afternoon!



700 Hicksville Road • ENECON Center Suite 110 • Bethpage, New York 11714 Toll Free: 888-4-ENECON • Phone: 516.349.0022 • Fax: 516.349.5522 Website: www.enecon.com • Email: info@enecon.com

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