



# Unconventional Solutions, Inc.

Experts in Repair and Protective Coatings

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## Project: Rotary Lobe Blower Refurbishment



### The Problem

Following the successful refurbishment of a set of twin lobes, which formed part of a Roots Rotary Blower at a steel plant, interest had been expressed in this advanced, polymer-based coating solution for the refurbishment of a series of Rotary Lobe Blowers. Its aim was to improve operational availability, reduce costs, and extend the life span/efficiency of the Process Gas Compressors.

A high performance ceramic repair and resurfacing system, manufactured by Thortex, was selected based on a series of reports and presentations, and a Thortex System Recommendation was submitted.

### The Solution

The Process Gas Compressor was disassembled and the casing, rotors, and head plates were found to be severely eroded and corroded.

The rotors were abrasive blasted. All deep areas were filled with **USI Ceramic Rebuild** and leveled to provide a suitable base to rebuild on. Two coats of **USI Ceramic Lining FG** was applied for low friction.

The same procedure was carried out on the head plates. The casing was rebuilt using **USI Metal Repair EG** leveled and finished with one coat of **USI Ceramic Lining FG**.

