FLUID SEALING INTERNATIONAL

Seal Repair Case Study: UNITED CONVEYOR CORPORATION

Background:

A malfunctioning seal can quickly lead to dangerous and disastrous conditions. In early 2019, FSI received an urgent call from United Conveyor Corporation (UCC). A seal was leaking on a Goulds XHD PF4S 125 slurry pump, a type of pump that transports liquid containing solid particles. Slurry pumps vary in design and construction depending on what will move through them - the concentration of solids, size and shape of particles and composition of solutions can influence the pump's design and how it performs.

Challenge:

The seal had been manufactured and installed by one of our competitors, and UCC was told it would take a month or longer to receive a replacement.

The pump's seals are also incredibly intricate, and a minor miscalculation could cause the entire pump to fail, leading to malfunction and expensive repairs.

How We Did It:

The damaged seal was made of duplex stainless steel, a highly-durable alloy. It possesses excellent mechanical properties and is especially resistant to corrosion and stress-corrosion cracking. Unfortunately, duplex stainless steel can be difficult to obtain on short-notice, but we were determined to find a way.

We presented UCC with a detailed quote in just under 24 hours. We also guaranteed a two-week delivery time.

The seal was designed, detailed, manufactured using duplex stainless steel, and shipped within the 14-day timeframe. It was carefully installed, and it's been operating for nearly a year with zero issues.

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