

# LIGHT INDUSTRIAL CASE STUDY

## MIXING SHAFTS



### 1 SITUATION

A retooling subcontractor needed substantial, lasting protection on four 5' tall mixing shafts. In use, the shafts are connected to large polyurethane mixers and immersed in a chemical separating tank where they agitate heterogeneous mixtures of chemicals to draw out pure chemicals.

Originally the shafts had been coated with an epoxy, but the coating was quickly degraded by the chemicals and the shafts began to rust. The retooling subcontractor then tried outsourcing the protection to a urethane coatings company, but this polyurethane material didn't hold up over time. The shafts needed to be protected by a product that had high chemical resistance and wouldn't flake or melt off into the chemical bath.

### 2 PROCEDURE

The subcontractor took the four mixing shafts to a sandblasting company and then delivered the etched shafts to the local LINE-X® store. The mixing shafts were primed with LINE-X SF-515 and then were sprayed with LINE-X SE-500 approximately 80-100 mils thick. Only the cylindrical parts of the shafts were coated. The tops and bottoms were taped off. Excluding the waiting period for the window of the primer, the project required about two hours of shop time.

About 350 strokes from an XP-1 were used on this project.

### 3 SOLUTION

The exceptional chemical resistance of LINE-X SE-500 was a great fit for the mixing shafts. After being sandblasted and primed with LINE-X SF-515, the shafts were coated with LINE-X SE-500 and back in service in less than 48 hours.

### 4 RESULTS

LINE-X SE-500 provided excellent protection against the corrosive chemicals that had previously degraded the shafts, the epoxy, and other polyurethane coatings. The substrate was properly prepped with an aggregate blast and SF-515 primer allow the product to meet the subcontractor's requirements for adhesion.

