

PYROTEK DELIVERS PUMP OUT SOLUTION FOR GALVANIZING KETTLE AT PORTLAND BOLT

Established in 1912, Portland Bolt & Manufacturing Co., Portland, Oregon, USA produces and supplies both black and galvanized steel anchor bolts and construction fasteners to ASTM specifications. Broad market areas served, for both domestic and export supply, include a variety of construction related industries and original equipment manufacturers.

In addition to in-house galvanizing processes for its own products, Portland Bolt offers sub-contract surface treatment services to outside customers, including products other than fasteners, such as fabricated assemblies and castings.

The company has recently installed a new, completely redesigned environmentally-friendly, hot-dip galvanizing line to ensure a high quality, corrosion-resistant coating with short lead times. The new state-of-the-art system includes a larger kettle, 12 ft long x 4 ft wide x 7 ft deep (3.7 m x 1.2 m x 2.1 m)—4 ft (1.2 m) longer than the previous line it replaced—and can process components, including fasteners, up to 11 ft (3.4 m) long. The old kettle was 8 ft (2.4 m) long x 3 ft (0.9 m) wide x 6 ft (1.8 m) deep.

As part of the upgrade, Portland Bolt installed the new larger kettle in a different part of the building and needed to pump out the existing galvanizing kettle prior to removal and decommissioning. They called upon Pyrotek, specialists in molten metal pumping systems, for technical process support.

Jim Shroads, Technical Sales Engineer at Pyrotek Inc.'s Ambridge, Pennsylvania, USA facility* worked with the customer. Following consultation and working closely with Portland Bolt staff, Jim recommended a pump out procedure using a Metaullics D-13XL galvanizing transfer pump system.

The Metaullics D-13XL pump is a centrifugal



device specifically designed for pumping galvanizing bath solutions. Its well-proven, high-performance technology and superior effectiveness are widely demonstrated in kettle pump out project solutions worldwide.

After manual removal of the bottom dross, the metal level was about 16 in (40.64 cm) below the top of the kettle. Portland Bolt's technical staff, Al Fogel and Steve Hastings, had set up an effective handling system for the task using rail cranes. One crane held the pump stationary in the centre of the kettle, while another crane moved the piping in an arc pattern around the kettle; the cranes controlled the vertical and horizontal movements of the piping and pump. Precisely following normal pumping procedures, the Pyrotek team was able to pump all the way down to within 4 in (10.16 cm) of the kettle floor before the pump slowed down and shut off. The metal was effectively pumped out of the tank into fifteen 55 gallon (208.20 L) drums using hook devices (11.5 tonnes total weight). The entire procedure, which took only 25 minutes, resulted in a very successful pump out.

Portland Bolt reports they are very happy with the effective and successful results of the Pyrotek application.