CHEMTOOL INCORPORATED

RPA 560 is a "Hot Solution"

Quality and Technology go "Hand in Hand"

Corrosion Prevention

September 2008

RPA 560 and Corrosion Prevention

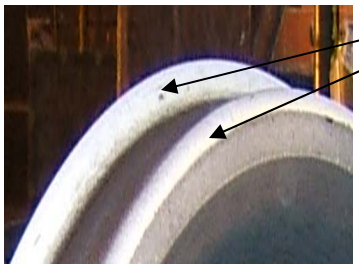
Griffin Wheel of Keokuk, Iowa, is a leader in the manufacture of curved plate (parabolic deep-dish) low stress wheels. For more than a century, Griffin has been the proven leader in railroad wheel quality, design and service. All Griffin Wheel plants are certified under the AAR M-1003 quality assurance program.

The low stress wheel is a major result of a Griffin design innovation. Their thin, lo-stress parabolic curved plate design has led the North American rail industry in safety and performance. In fact, the Association of American Railroads requires that all new wheels and remounted second-hand wheels for interchange service be approved low-stress designs. Quality and exact compliance with Griffin Wheel specifications are crucial to their products success.

Griffin Wheel had on-going issues with corrosion and the cleanliness in their hot wheel grind application. In this process, Griffin uses an in house designed machine to grind off the risers and the outside ring from the wheel. Throughout the grinding application, they were experiencing a severe build up of rust and corrosion inside the machine. The excessive build up of rust demanded that the machines had to be cleaned bi-weekly. Additionally, the product Griffin used to prevent the corrosion from building up in the machine seemed to be very expensive, especially in light of the results they had been receiving. Griffin used the Houghton RustVeto 2212-M at a 5% concentration.

Griffin Wheel approached Chemtool to solve their ongoing issues of corrosion and rust build up in their hot wheel grind machines. After reviewing the Griffin process, the Chemtool Engineer suggested the implementation of a program that would introduce RPA 560. RPA 560 was set to serve as a coolant, along with acting as a corrosion preventative in the grinding process, thus eliminating a step.

Debris on wheel



Clean

(**Wheel prior to grinding**) (**Finished wheel after grinding**)

After running the RPA 560 for a couple of weeks, a dramatic change occurred inside the hot wheel grinder. There was a noticeable reduction of build up inside the machine, along with the ability to RPA 560 as a solution for the grinding process. The end result was two-fold.

First: Since the introduction of Chemtool's RPA 560, Griffin Wheel has not had to perform any inside maintenance on their hot wheel grinding machines, versus the bi-weekly demanded by the build up issues from the RustVeto 2212-M. Bottom line, more production, less downtime and a significant cost savings.

Second: Griffin was able to run the RPA 560 at 3% concentration. **The result of running RPA 560 was a reduction of approximately $ 12,000 in labor savings and $ 20,000 in solution savings**. Overall, Griffin Wheel saved an estimated **$32,000 a year**.

Truly, Quality and Technology go hand in hand.

RPA 560 Product Description

RPA 560 **is a water dilutable corrosion inhibitor based on the select volatility of amine chemistries. RPA 560 is recommended for applications which require short term (1-3 months) to long term (6-8 months) indoor protection of cast iron and steel alloys. RPA 560 contains no Diethanolamine or Nitrites.**

RPA 560 **is low foaming and is an effective rust inhibitor at low concentrations. It is completely soluble in water and may be used as an in-process rust inhibitor. Due to the products solubility you can tailor the products concentration to meet your protection requirements.**

RPA 560 **forms a near imperceptible film on machine parts for excellent corrosion protection without leaving a sticky residue. RPA 560 is compatible within a wide range of water hardness. The clear dilution makes it an ideal choice for leak detection systems.**

Tote of RPA 560