

CASE STUDY:

How Harrigan Solutions Helped a Piston Ring Manufacturer Reduce Rust Deposits and Save \$10-\$15,000 a month

EXECUTIVE SUMMARY

A piston ring manufacturer had a huge problem. For the better part of a decade, the company had been dealing with rust and corrosion issues, leading to a rise in discarded parts, increased scrap and cleaning expenses and a rising amount of rejected orders. The issue had gotten so bad that when Harrigan Solutions was brought in, the plant manager jokingly asked, "will you guarantee to get rid of rust in the plant?"

ABOUT

Harrigan Solutions has a 20-year relationship with the manufacturer as a fluid supplier. When Harrigan shifted focus to performing preventative maintenance, the manufacturer brought them in to solve their growing rust problem. Given their experience with the company, Harrigan was immediately able to ramp up the company's continuous improvement plan and started to seek out the source of the corrosion.

CHALLENGES

After assessing the issue at the manufacturer, Harrigan Solutions uncovered several issues that needed to be addressed:

1. Washer baths weren't being adequately maintained to get the required part cleanliness needed by the customer.
2. Because the bath quality was not being maintained, magnets in the filter vessels would stop working, allowing impurities to remain with the parts.
3. The cleaner being used in the bath was not robust enough to provide the necessary corrosion protection, leading to ring corrosion and pitting.

HOW HARRIGAN HELPED

Once assessing the situation, Harrigan quickly developed and implemented a preventative maintenance plan to:

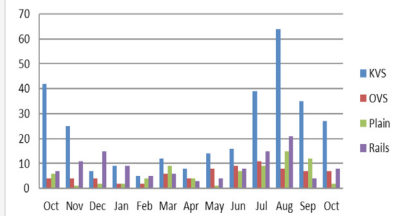
1. Restore Continental Washer baths to original operational condition, through a combination of chemical and mechanical cleaning.
2. Install filter bags/filtration to the system. Monitor consumable life and particle counts to determine optimal filter media to be used.
3. Research, test and implement proper cleaner and corrosion protection chemistry for the application and customer requirements.

RESULTS

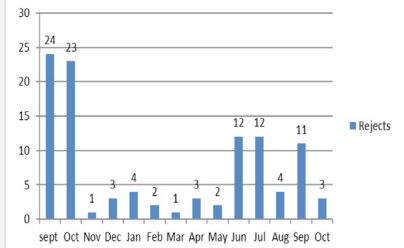
The piston ring manufacturer saw immediate results once Harrigan Solutions stepped in. As you can see in the charts to the right, Harrigan's efforts:

1. Drastically reduced the rust scrap rejects at Customers. Went over 6 months so far without a reject.
2. Reduced the number of scrapped parts due to corrosion by 85%
3. Reduced the amount of rejected parts by more than 90%
4. Created an annual cost savings of more than \$100,000

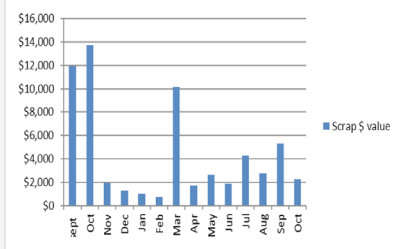
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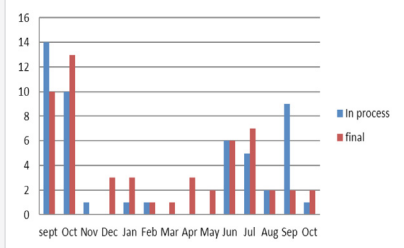
REJECTS FOR RUST



\$ VALUE RUST SCRAP



REJECTED ORDERS



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888-685-9603 • HarriganSolutions.com • BHarrigan@HarriganSolutions.com



HARRIGAN SOLUTIONS