

Case Study

MEAT PROCESSING

Remove iron contamination with an innovative new product

Explore an effective, chlorine-free solution



Challenges

Our client had been using a conventional chlorinated alkaline cleaner degreaser and noticed corrosion issues on several pieces of equipment. Analysis revealed that the equipment was contaminated by insoluble iron particles from the city's cast-iron water mains. These particles spread throughout the plant and came into contact with chlorine, causing localized corrosion and increasing the risk of food contamination. We also discovered that even in the absence of corrosive elements such as chlorine, stainless steel is still vulnerable to corrosion when exposed to iron particles. Removing rust from equipment can lead to wasted time on passivation, as well as financial losses due to obsolete equipment.



Solution

In response to this challenge, we used FLEXIGEL™, a chlorine-free oxidizing alkaline degreaser. Developed for the food and beverage industry, FLEXIGEL™ is a patent-pending solution that effectively removes oils, greases and protein residues without inducing localized corrosion. During on-site trials at a pork slaughter plant, we applied FLEXIGEL™ to carbon steel blades at concentrations of 3-4%. Our tests indicated that FLEXIGEL™ solution is more stable in the presence of iron particles, unlike chlorinated cleaners that caused iron precipitation. This innovative product provides a chlorine-free alternative while safeguarding metal surfaces from corrosion. Best of all, FLEXIGEL™ does not produce chloroform as a by-product.



Results

By choosing FLEXIGEL™, our client was able to resolve their corrosion issue and embrace a safer, more efficient solution for their industrial cleaning needs. The solution also proved to be extremely effective in removing all rust spots after cleaning.



Carbon steel blades before cleaning (left) and after cleaning (right) with 3-4% FLEXIGEL™



SANI MARC
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