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PRESS RELEASE

How to Improve WIP Cycle with Dry Rust Preventative Technology

While Cortec VpCI® Technology has opened the doors to simpler, speedier forms of corrosion protection, some metal processors and manufacturers today are still doing things the hard way: applying a wet film rust preventative that must be cleaned off before it goes to the next stage of processing. In contrast, Cortec's various methods of dry corrosion protection offer notably cleaner, safer, and faster methods of corrosion protection that could drastically improve the WIP cycle.

Rust Prevention and the WIP Cycle

The WIP, or Work-In-Progress, cycle ties directly to manufacturing efficiency. Any extra steps or movements that are eliminated can speed up the entire process, meaning goods can be made more quickly and overall production can be increased. Rust prevention is a prime area to pinpoint inefficiencies.

The traditional corrosion inhibiting process for metal workers often looks like this: A metal part leaves one stage of processing but must sit several hours or days before further processing. Workers apply an oil- or solvent-based rust preventative that leaves behind a wet film on the metal part to protect it from flash rusting in the meantime. The metal part sits in a bin until it goes to the next stage. The worker who receives it must clean it off—sometimes with a hazardous solvent—before further inspection or processing. After this stage, the part may need more rust preventative applied for the next phase, more cleaning, and so on until the final rust preventative is applied for shipment, and the task of rust preventative removal shifts to the customer.

Improving the WIP Cycle

Each of these extra steps of applying a rust preventative, cleaning, and repeating adds up to the loss of significant time and resources when considering the hundreds of thousands of parts that may go through the shop. Even a person who has not been trained in lean manufacturing can realize that eliminating some of the extra movements and materials required to protect and clean metal components could make process cycle times much faster. Here is a closer look at the form that dry protection might take.

- VpCI®-126 Film and Bags are great for lining in-process bins or crates that hold parts. CorShield® VpCI®-146 Paper can be used to separate and protect multiple layers. Each of these VpCI® packaging materials releases Vapor phase Corrosion Inhibitors that form a protective molecular layer on the metal surface as long as the area remains enclosed. Custom CorrCap VpCI® Protective Covers made out of VpCI®-126 Film are also great options to place over racks or carts that have to be repeatedly opened (e.g., for parts going in and out of QC).
- BioPad® or other VpCI® Emitters add extra vapor-phase protection where needed inside these packages.

BioPad®

- BioCorr® is a liquid rust preventative that dries to a thin, barely noticeable film that works well for tight tolerances and (if it does need to be removed) can be easily rinsed off with water instead of harsh cleaning chemicals.

BioCorr® HP

- VpCI®-377 is a water-based concentrate designed as a complete replacement for oil-based rust preventives for indoor protection of equipment and components. VpCI®-377 is a corrosion preventive liquid that meets tough anti-pollution requirements. The wide dilution range with water (0.5-20%) allows flexibility to customize the length of protection required and the applied cost per square foot (or m^2).
- VpCI®-386 is a fast drying, water-based acrylic one coat system (topcoat) that can be applied DTM (Direct to Metal) and provides protection in harsh, outdoor, unsheltered applications. The complex mixture of non-toxic, organic inhibitors offers protection that competes with most paints and zinc-rich primers. Provides multi-metal protection. Excellent UV resistance. VpCI®- 386 is weldable and can be used to keep surfaces corrosion free prior to welding. Can be matched to most custom colors.

Each of these forms of dry rust prevention can streamline the WIP cycle and also leave behind a cleaner facility through less use of greasy materials. When workers go to bring a bin of parts to the next stage, they simply have to pull the component out and begin the next phase of work. Another benefit is that several of these materials (i.e., CorShield® VpCI®-146, BioPad®, and BioCorr® HP) are USDA Certified Biobased Products that can add to the company's sustainability initiatives.

Start Streamlining Your Processes

Whether you are a lean manufacturing expert or simply a manufacturer looking to simplify the WIP cycle without a full Six Sigma analysis, VpCI® Technology has great dry protective options to save time and hassle for your production process. Contact Cortec® today to get started reducing your WIP-cycle time with a logical approach to in-process rust prevention.

Keywords: how to improve WIP cycle, work in progress cycle time, corrosion protection, rust preventatives, manufacturing efficiency, lean manufacturing certification, biobased rust preventatives, Cortec, corrosion inhibitors, metalworking

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