

CORROSION FIGHTER: Cheese Company Gets Tough

The food processing industry is one of the largest manufacturing industries in the U.S., accounting for approximately 14 percent of the total U.S. manufacturing output. A typical food processing facility contains diverse equipment of varying ages constructed from a wide range of materials, many of which are metallic and consequently vulnerable to attack by corrosion. Food processing plant maintenance departments, therefore, must constantly battle the effects of corrosion on metals in the plant especially because of stringent food quality requirements. In fact, the current costs of corrosion damage within the food processing industry are estimated at a staggering \$2.1 billion per year.

Battling corrosion must begin with proper material selection. So says Troy Wells, co-owner of Heartland Electric, the electrical contractor handling the Hilmar Cheese Co. account. Hilmar Cheese's new cheese and whey protein food processing plant in Dalhart, TX, was facing a day-in-day-out challenge protecting its electrical system from corrosion. From practical experience, Wells knew that food and beverage plants have to cope with diverse and sometimes extreme forms of corrosion including chlorides, sulfating agents, and organic acids. Sensitive electrical wiring systems must be protected by materials that can resist corrosion for the long term. Additionally, such systems must be capable of withstanding high-pressure washdown areas and prevent corrosive agents from encroaching on the systems.

Wells installed a system of polyvinyl-chloride (PVC) externally coated rigid steel conduit from KorKap a product used to protect sensitive wire and cable systems in extremely corrosive environments. KorKap is a leader in the PVC-coated galvanized rigid conduit industry. In addition, Wells used KorKap's V-Seal gasketed Form 8 fittings to ensure that corrosive moisture would not enter the joints where lengths of conduit are connected. Available in body sizes to fit 1/2 to 2 in. conduit sizes, the patented V-Seal uses a special interlocking V tongue and groove gasket. It also features a 40-mil gray PVC exterior coating and a 2-mil urethane internal coating for optimized coating protection.

"KorKap PVC-coated conduit offered us unique benefits for corrosion protection for the Hilmar food processing plant," said Wells. "This is the type of product you can install, then walk away from without worrying about its long-term reliability."

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