

Case Study

Van Holten's Pickles Connects with Safety and Savings

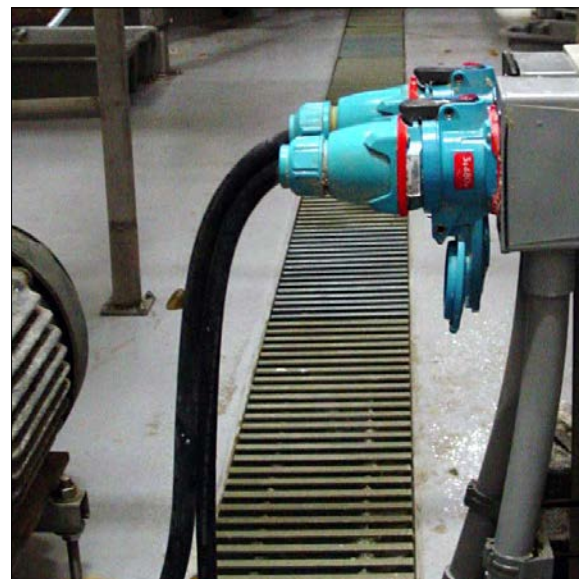
Van Holten's Pickles found an easier and safer way to connect and disconnect pumps, conveyors, and other equipment by using combination plug/receptacle and disconnect switches. The MELTRIC Switch-Rated plugs and receptacles allow workers to safely make and break electrical equipment connections, even under full load. Because they are UL switch and horsepower rated, the Switch-Rated devices meet NEC requirements for a motor "line of sight" disconnect. They also cost less than conventional connectors over the long-term.

Van Holten's Pickles was founded in 1898 and has been producing individually-wrapped Pickle-in-a-Pouch products since 1939. Originally located in Milwaukee, the company moved to a larger plant in Waterloo, Wisconsin in 1956, where it recently opened a new 53,000 square-foot facility. The company produces approximately 18 million individually-pouched pickles annually.

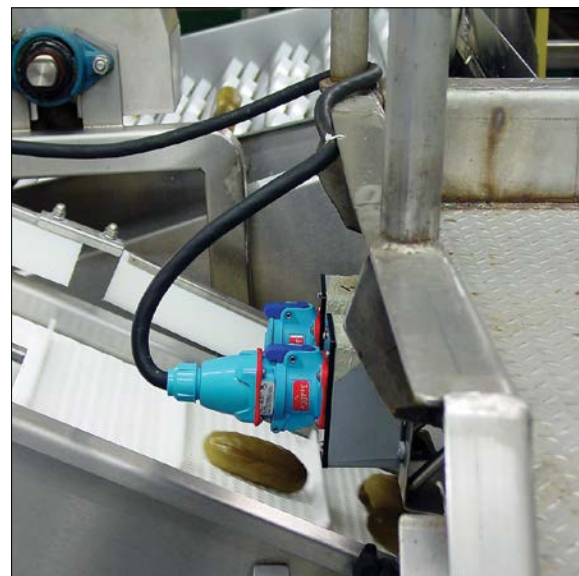
Previously, Van Holten's connected the many pumps and conveyors in its plant with twist-type or pin-and-sleeve connectors partnered with separate disconnect switches. The combination of salt, moisture, acid, and heat used in the pickling process caused the switches and plugs to fail regularly. Safety was also an issue because of the potential for a worker to insert or remove a plug without first verifying deenergization at the local disconnect switch.

Project Engineer Arland Wingate points out that the company does not hard wire most pumps and conveyors because being able to quickly disconnect and reconnect equipment for repair or replacement helps to minimize downtime. Electrical safety during equipment changeouts used to be a concern, but is less so now because the MELTRIC Switch-Rated plugs and receptacles' safety shutter and internal arc chambers prevent exposure to live parts and arc flash. The new plant provided an opportunity to upgrade and standardize with Switch-Rated plugs and receptacles. Wingate explains, "When I first saw them, I thought they would work well for us, but we weren't ready to change everything over. The new plant gave us an opportunity to include the conversion in the budget, so we made it our standard."

According to Wingate, the heat and harsh atmosphere ruined the previous plugs because the brass contacts often corroded and welded together. He points out that the long-term operating cost was a big factor in selecting the Switch-Rated receptacles, which feature corrosion-resistant solid silver-nickel contacts. "Our company has been in business for 100 years, and I try to look at the long-term when I buy things for the plant. We had been buying a lot of the previous plugs for replacements.



Pump motors such as these 7 1/2 hp units are easy to disconnect using the MELTRIC Switch-Rated connectors.



MELTRIC Switch-Rated plugs and receptacles feature an OFF switch/pawl which can be used as an emergency switch for conveyors.

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When we designed the new facility, we looked at ways to keep the cost down without sacrificing safety or our other needs,” he says.

In addition to the long-term cost savings in replacement plugs, the MELTRIC devices integrated disconnect switch appealed to Wingate. He states, “I liked the idea of not needing a separate plug and disconnect box. It not only costs less, but it eliminates one more thing to go wrong in our environment. Before, it was too easy for someone to disconnect something and forget to lock it out properly.” MELTRIC Switch-Rated plugs are easily locked out by inserting a lock through a hole in the plug shroud.

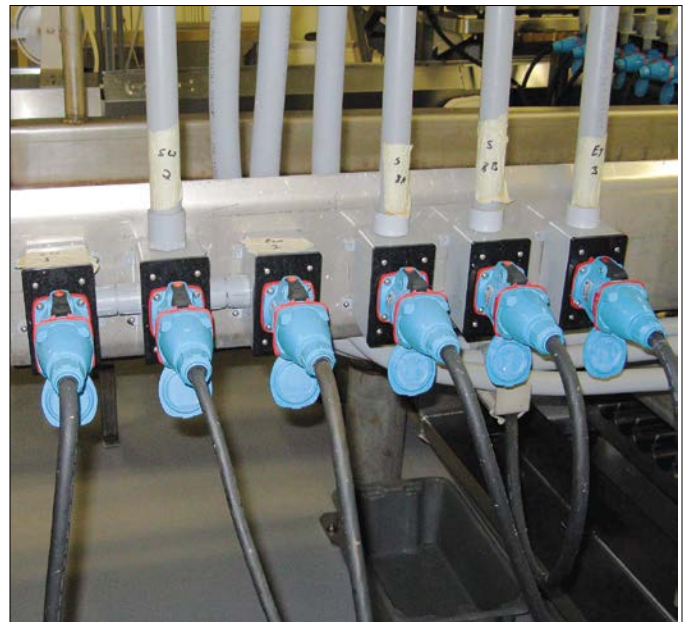
While moisture and other harsh conditions are prevalent in many areas, some of the Type 4X-rated MELTRIC devices are located in areas where they are regularly subject to being splashed with brine. According to Wingate, there have been no problems during the year they have been installed. He says, “Over the past year, we’ve not had any scoring of the contacts because of the quick break, and we don’t have to worry about arcing or corrosion buildup.”

Most of the applications are on 440 volt power, with some on 230 volt equipment. In addition to the production equipment, the company uses MELTRIC switches on maintenance equipment such as welders and saws. It also installed several along one exterior wall, where they are used to provide power to a large cucumber loading machine when it needs to be moved along the back of the building.

Wingate reports that the company is planning to triple the size of its tank yard soon and will convert it to MELTRIC Switch-Rated devices as part of the project. “We will use them on pumps and conveyors, and also the low-pressure blowers we use to help move product along,” he adds.



Four MELTRIC Switch-Rated connectors provide power to individual pumps used to empty holding tanks for various sizes of pickles.



A bank of six MELTRIC Switch-Rated plugs and receptacles connect conveyor drive motors on the pickle sorting line.