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Case Study: Craft Brewer Taps into Cost Savings with Switch-Rated Plugs

COMSTOCK, MI – Bell's Brewery, Inc., a craft brewery that produces a full line of ales, beers and stouts, has specified for its construction expansion projects Meltric DECONTACTOR™ Series switch-rated plugs and receptacles to connect and disconnect equipment as varied as grain handlers, conveyor motors, portable pump carts, and keg washers in order to obtain installation cost savings, simplified lockout-tagout safety, and production efficiencies during maintenance and equipment changeouts. The company has been using Meltric plugs and receptacles since 2005 and is satisfied that Meltric switch-rated devices are the ideal solution for connecting and disconnecting a wide range of brewery production equipment at a cost effective price.

Rapid Growth Drives Cost-Effective Purchasing Decisions

Bell's Brewery, Inc. is a multiple-site production operation located in Comstock, MI. It brews more than 20 beers for distribution across a 19-state area, Puerto Rico, and Washington D.C. through a network of over 80 wholesalers. As the demand for craft beer has been on the rise in the U.S, according to the Brewers Association —with an industry growth of 15% by volume and 17% by dollars in 2012 compared to 13% by volume and 15% by dollars in 2011— Bell's Brewery expects to see a corresponding growth for its products. In 2012, Bell's Brewery produced over 216,000 barrels; the company expects to produce over 250,000 barrels in 2013. "We have grown steadily and continue to grow," according to Jeff Carter, the Facilities & Utilities Manager of Bell's Brewery. "We have expanded beyond our original facility and have another construction expansion project in the planning stage. So, we are looking for quality at the best possible cost when sourcing materials and equipment."

The original brewery for Bell's Brewery is located in Kalamazoo, MI where founder Larry Bell launched his business in 1985. The Kalamazoo brewery is still in operation, but to meet the demand for its beer, Bell's Brewery built another facility in 2003 about seven miles east of Kalamazoo in Comstock, MI. This facility has undergone five major additions and encompasses over 100,000 square feet of building space on a 32-acre site. Its most recent construction and expansion project, which



Bell's Oberon is a wheat ale fermented with Bell's signature house ale yeast, mixing a spicy hop character with mildly fruity aromas. Pairs well with Meltric DECONTACTOR Series switch-rated plugs.



Meltric DECONTACTOR™ Series switch-rated plugs and receptacles can safely make or break electrical loads. They are a NEC-approved 'line of sight' disconnect switch, as shown here on a glass bottle labeling machine.

includes a 200-barrel brew house, officially opened in 2012. It also includes fourteen 400-barrel fermentation tanks and new grain handling facilities. Beers are now brewed on a 50-barrel system and the newer 200-barrel system with a total annual capacity of more than 500,000 barrels.

Says Mr. Carter, "When we installed the 200 BBL grain handling system, Meltric switch-rated connectors helped us decrease the cost of the construction project by simplifying the installation since the Meltric devices are NEC-approved 'line of sight' disconnects."

Meltric's Cost Saving Advantage: Switch-Rating and an Approved 'Line of Sight' Disconnect Switch

Prior to installing Meltric switch-rated connectors on its production equipment, Bell's Brewery used pin and sleeve connectors. But these connectors were more expensive since they required a 'line of sight' disconnect switch in addition to the pin and sleeve connector. To reduce installation costs, Bell's Brewery decided to purchase Meltric's DECONTACTOR™ Series switch rated plugs & receptacles which are UL/CSA rated for 'motor circuit' and 'branch circuit' disconnect switching and are an approved NEC/CSA 'line of sight' disconnect switch. Says Mr. Carter, "They are better than pin and sleeve connectors that we previously used. Meltric saves money because you don't need a separately mounted 'line of sight' disconnect."

Meltric's DECONTACTOR line of switch-rated plugs and receptacles combine the safety and functionality of a disconnect switch with the convenience of a plug and receptacle. Their integral switching mechanism allows users to safely make and break connections under full load and provide significant protection in overload and short circuit conditions. They are UL approved as a 'motor circuit disconnect switch' and as a 'branch circuit disconnect switch' (UL Subject 2682). Their enclosed arc chambers ensure that the load is safely disconnected, and that all 'live' parts are isolated and inaccessible before the plug can be removed. This design shields users from potential arc flash hazards at all times while making and breaking connections.

Meltric's switch-rated devices have the additional benefit of limiting downtime, associated with maintenance and equipment changeouts, by up to 50 %, since no hardwiring of connections is necessary. The spring-loaded, integral switching mechanism can disconnect a circuit simply by depressing the pawl on the Meltric device where it is then ejected in the 'off' position in only 15 milliseconds. The user only needs to rotate the plug and withdraw it from the receptacle to complete the disconnecting operation. In addition, the silver-nickel, butt-style contacts controlled by a spring-loaded integral switching mechanism eliminates contact mating and connection quality problems intrinsic to sliding friction contacts such as pin-and-sleeve connectors. "The time savings associated with prewiring replacements will save us downtime, which is an added bonus," says Mr. Carter.



At Bell's Brewery, portable pump carts are connected with Meltric DecontactoRs which combine the safety and functionality of a disconnect switch with the convenience of a plug and receptacle. Their integral switching mechanism allows users to safely make and break connections under full load and provide significant protection in overload and short circuit conditions.



Bell's Brewery has the benefit of limiting downtime on their grain handling equipment, associated with maintenance and motor change-outs, since no hardwiring of connections is necessary.

Simplified Lock-Out/Tag-Out was a Purchasing Influencer

As Bell's Brewery has grown, so has its maintenance department, which now operates as part of beer production, packaging, facilities and utilities departments. So, the need to frequently lock-out and tag-out equipment for maintenance is not only crucial for worker safety, but also a more frequent operation. "We use the lock-out/ tag-out feature for our pumps. All you need is a lock and insert it in the hole on the plug. The safety that comes with the lockability of Meltric devices is something that influenced our purchasing decision as well" says Mr. Carter.

Meltric plugs have a built-in, convenience feature that makes it easy to comply with OSHA's lock-out/tag-out requirements. With simply a 5/16" lockout hole in the plug shroud, Meltric devices can be easily locked out by inserting a user-provided lock through the hole in the male plug. The lock on the disconnected male plug prevents insertion into the female receptacle and provides visual verification of deenergization. In comparison, most other pin and sleeve plugs require an additional third-party lockout shield or plug cap, which can be not only expensive, but also are often times lost, broken, or not available when needed.



Meltric is Our Standard for Plugs

Bell's Brewery has a new expansion project in the planning stage. Called "Upper Hand Brewery," it will occupy a 5.1 acre lot in Escanaba, in Michigan's Upper Peninsula (UP), where a variety of unique beers will be brewed and bottled there for distribution across the UP as well as in adjacent northern states. Mr. Carter intends on specifying Meltric switch-rated plugs receptacles in this new brewery based upon his positive experience with the Meltric brand. "Safety, functionality, reliability, and cost set Meltric apart from the rest. It is our standard for plugs," says Mr. Carter.