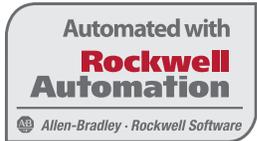


Solutions in Action



Allen-Bradley CompactLogix Programmable Automation Controller

The fully-automated craft brewing system from SMT takes advantage of the latest graphics, touch-screen and mobile technology.



Allen-Bradley PowerFlex AC Drive Family



Allen-Bradley PanelView Plus 7 Graphic Terminal

When it comes to microbreweries, one thing is certain: no two are alike. And while there is a degree of standardization to the brewing process, equipment suppliers must customize installations to meet unique layouts and system parameters – and anticipated production demands.

“Many craft brewers start their businesses conservatively and with fairly simple manual systems,” said Glen Moore, president, Smart Machine Technologies. “But those that become successful soon recognize the value of a fully automated solution. We’ve grown our offerings to meet this need.”

A custom machinery supplier with nearly 40 years of success serving a range of industries, Smart Machine Technologies (SMT) has developed specific expertise in craft brewing solutions in recent years. The company designs and fabricates all systems from its headquarters in Ridgeway, Virginia.

In line with the demands of the industry, SMT initially deployed primarily manual systems that included operator panels for starting and speed control. Next, the company moved to semi-automated systems that controlled certain subroutines.

LISTEN.
THINK.
SOLVE.

“But I wanted to take it one step further,” said Moore. “I planned to design a fully automated system that would take advantage of the latest graphics, touch-screen and mobile technology.”

Simultaneously, a potential customer, Schulz Bräu Brewing Company, was expanding to a second location and approached SMT for a solution.

“Schulz Bräu had a manual system at their first brewery and hoped to install an automated system at the new site,” Moore said. “I asked Rockwell Automation if they would work with us on this project.”

SMT collaborated with Rockwell Automation Global OEM Technical Consultants (GOTCs) throughout initial hardware selection and system development.

The SMT control system is based on the Rockwell Automation application code developed for craft brewing, which runs on standard Rockwell Automation process control hardware and software platforms.

Specifically, the application runs on an Allen-Bradley® CompactLogix™ controller and incorporates Allen-Bradley PowerFlex® AC drives for variable speed control. Allen-Bradley PanelView™ Plus 7 graphic terminals provide local monitoring. Centralized supervisory-level visualization is achieved via an Allen-Bradley 6181P integrated display computer.

Integrated on an EtherNet/IP™ network, the system includes an Allen-Bradley Stratix™ managed Ethernet switch and wireless access point solution for smart plant operation. The system includes both brewhouse and cellar applications.

For access on mobile devices, the solution includes FactoryTalk® ViewPoint, an add-on to PanelView Plus, which provides a secure interface to graphics, trending, and alarming through a web browser.

Schulz Bräu Brewing is pleased with the new fully-automated system.

“The SMT system helps us maintain quality control over the process,” said Nico Schulz, owner, Schulz Bräu Brewing Company. “It allows us to save our recipes and run the same sequence repeatedly, so we know each new brew will be the same as the first.”

“And since I own one brewery in Kentucky and another in Tennessee, mobile access is essential,” Schulz added. “I have full control of the Tennessee operation from my smartphone when I am in Kentucky.”

SMT looks forward to helping more microbreweries achieve the efficient, repeatable performance their automated system delivers. The company is also considering adding an optional pasteurization system to their offering in the future.

“On principle, many craft brewers are opposed to pasteurization and feel it degrades taste,” Moore explained. “However, brewers that plan to store their product for any length of time or expand distribution across a broad geographic area must pasteurize.”

For more than 30 years, some of the world’s largest breweries have relied on SMT for pasteurization systems. As a result, the company is uniquely positioned to help craft brewers add this functionality. The pasteurization system would be designed to seamlessly integrate with the automated craft brewing system.

“The GOTC team provided a valuable service and helped streamline our initial system development,” Moore said. “We will continue to work with the Rockwell Automation team on new installations – and any new functionality we may choose to add.”

For more information:

Smart Machine Technologies

Phone: 276.632.9853

Web: www.smartmachine.com

Allen-Bradley, CompactLogix, FactoryTalk, Listen.Think.Solve., PanelView, PowerFlex, Stratix and Rockwell Software are trademarks of Rockwell Automation, Inc.

EtherNet/IP is a trademark of ODVA. Other trademarks are the property of their respective companies.

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846