

Miller Brewing Company

EMCOR FAS/Automated Logic Corporation



HVAC System Upgraded for “Brewery of the Future”

The Challenge

- Replace pneumatic controls system with near zero downtime (due to food processing demands)
- Improve indoor air quality
- Increase operational reliability
- Reduce operating, repair and preventive maintenance costs
- Enable maintenance personnel to monitor and control HVAC equipment from anywhere in the facility

The Players

Big changes are brewing at this state-of-the-art facility. Miller Brewing Company’s Trenton, Ohio plant is the company’s most automated malt beverage production location. Originally built in 1979, the facility was shuttered through the 1980s and reopened in 1991 following extensive renovation.

The brewery’s five buildings total 1.4 million square feet. The plant bottles 28 Miller and 50 non-Miller products at the company’s lowest cost-per-barrel. Its 645 employees are organized

into self-directed work teams which share collective responsibility for managing the facility.

EMCOR Facility Automation Services, a subsidiary of the EMCOR Group, provides a full range of analysis, design, installation and support capabilities. The company’s proposal to install WebCTRL®,



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Automated Logic's web-based building automation system featuring native BACnet® communications, was selected over three competitors for two important reasons:

- its experience with Automated Logic® HVAC control and energy management systems, and
- its ability to upgrade mechanical systems during the DDC upgrade.

The project is being handled by EMCOR FAS's Cincinnati office.

The Solution

The five-phase project is taking place over a five-year period (2001-2005). To date (Feb. 2004), three phases with approximately 5,000 automation points have been completed: the bottling/packaging, distribution and warehousing areas of the plant (offices/laboratories and central core areas remain). New HVAC equipment includes constant volume and VAV air handlers, steam and chilled water coils, economizers, makeup air units and DX units. All of the air handlers have been upgraded to standalone DDC distributed processor controllers with time scheduling, demand limit and emergency override functions.

"These upgrades have restored critical production ventilation and lowered energy costs by reducing the consumption of compressed air, chilled water and hot water. And they've eliminated the costly servicing of pneumatic controls," commented Doug Lafever, EMCOR FAS Operations Manager.

"Automated Logic's visual programming, graphics and best-in-class graphical user interface proved ideal for the plant's self-directed, cross-trained work team model," Lafever continued. "The graphical representation of these HVAC systems has increased user awareness and reduced training costs for maintenance personnel."

Altogether, good reasons to toast this successful installation.

Project Summary

Location:	Trenton, OH
Project Type:	Retrofit
Building Size:	1.4 million sq. ft. (5 buildings)
Building Usage:	Malt beverage production
Objectives:	Replace pneumatic controls; improve IAQ; reduce overall operating costs
Design Considerations:	Troubleshooting analysis before implementation; near zero downtime
Major Decision Drivers:	Controls accessibility and ease of use; mechanical upgrade during DDC installation
HVAC Controls:	Automated Logic WebCTRL®
Installation Date:	Phased 2001-2005
Controls Contractor:	EMCOR Facility Automation Services



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