



ADVANCED CONTROL SYSTEMS INC.

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Visit Us This Winter!

At the World of Concrete, Las Vegas, Jan. 22-25, 2008, Booth #N1063, or at the Manufactured Concrete Products Exposition (MCPX), Denver, CO, Feb. 7-9, 2008, Booth #345.



Left to right: ACS National Sales Manager Jay Newton, VP Reimund Richter, and Andreas Schilli, President of ACS parent PTA.

New! Mobile Control Does it All!

Based on the Sony Vaio UX180 handheld PC, the new ACS Mobile PC can run the full PCS Computer Control System from ACS for total plant control anywhere, anytime. Control batch recipes, adjust tolerances, monitor probe calibration, and order batches from anywhere on the plant floor and beyond.



This pocket-size remote control option features full-color touch-screen LCD display, keyboard, wireless connectivity, hard disk storage, and biometric fingerprint reader security for optimal safety. Windows operating system, Bluetooth, Wi-Fi, and optional Cingular data network connectivity allows you to stay in touch with your office while on the move. Call ACS to learn more!

Update

WINTER 2008

Conewago Chooses Flexible, Easy-to-Use ACS Plant Control Solution

Conewago Enterprises of Hanover, PA, sells its precast products – including Spancrete® hollow-core wall panels and floor planks – to one of the toughest customers in the world: itself. At least 30 percent of Conewago's annual output is sold to the firm's design build construction operation. The remainder of its precast production is sold to other construction firms and corporations throughout the Northeast and mid-Atlantic area.

Vertical integration is nothing new to Conewago. The firm began life in the 1950s pouring precast septic tanks. In the 1960s it became a general contractor specializing in pre-engineered steel buildings. It wasn't long before the company began fabricating many of the steel components needed for its projects. As a general contractor for commercial, industrial and municipal projects, Conewago found that the more it could do and control itself, the better the outcome.

In 2002, after years of research and planning, Conewago decided to take the next step and invest in a complete precast concrete production and ready mix operation. The firm built a state-of-art 100,000 square-foot precast production facility to house three 800-foot-long casting beds for its Spancrete GT240 System. The system can produce hollow core floor planks and wall panels up to nine feet wide and 60 feet in length.

In addition, the dual-mixer platform in the new facility supports the company's wet-cast architectural panel production and Porous Pave mix, one of Conewago's newest products. Porous Pave is a special concrete mix formulated to allow water to pass through to the subsurface, virtually eliminating the need for costly storm water management systems.

The Challenge

Not long after Conewago's new production facility came on line in 2003, problems with the plant's batch control systems became apparent. As demand steadily increased, control system problems began to have an adverse impact on production, quality, material costs, and labor. One of the biggest problems, according to Conewago Plant Manager Kevin Gladis, was a lack of adequate support.

"We felt the impact of our control system shortcomings on the wet cast side of our operations most acutely," Gladis says. "That's where we need to maintain the tightest tolerances and consistency. We use self-compacting concrete (SCC) on the wet cast side and the control of water-cement ratio is critical. Overall, we felt that we could achieve much greater productivity if we could improve the control system."

With Spancrete beds of 800 feet, the longest in the industry, it was taking the Conewago production crew about 3.5 hours to produce a single bed using the old batching control system. In addition, the firm was losing up to two bucket loads – 5 cubic yards – per day in wasted mix due to control problems.



Conewago Batching Operator Mike Unger, seated, and Plant Manager Kevin Gladis use the PCS Computer Control System from ACS to fine-tune planned batch runs for the day. The graphical user interface shows the operator exactly what is taking place or planned at any point in time. Up to 1,000 recipes can be stored and recalled at the touch of a button.

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Conewago continued

The Solution

According to Gladis, Conewago looked at new control systems for more than a year, gathering information at trade shows, through word-of-mouth, and via the Internet. "Service and support were our biggest concerns. We talked to a handful of references from each of the vendors we were considering. Once we had done our research, it was an easy decision to choose Advanced Control Systems. Even some of the customers we spoke to who were using controls from ACS competitors recommended ACS."

In the spring of 2007, ACS Sales Manager Jay Newton and ACS Vice President and Engineer Reimund Richter met with Gladis and his team to work out exactly which systems needed to be integrated into the PCS Computer Control System. The PCS system from ACS would provide complete control for:

- two pan mixers
- six aggregate bins
- four cement silos
- flop chutes between mixers
- cement scales on each mixer
- admixture metering
- control of Stanley color system
- automatic and remote control ordering
- ACS Hyrdomat automatic microwave water metering system, and
- ACS Hydrotester aggregate moisture probes

The PCS control system from ACS runs on a standard PC under the Windows operating system and ties together plant administration, production, material ordering, consumption monitoring, process supervision, costing, and maintenance into a single, efficient control solution. The PCS control system can store up to 1,000 concrete recipes and recall them at the touch of a button.

Primary point-and-click mouse control is backed by a touch-screen auxiliary PC to ensure operations can continue even if the primary PC malfunctions. An uninterruptible power supply (UPS) helps protect the control system against voltage spikes and dropouts, or even short-term power outages.

"Jay called us back several times during pre-installation planning and double-checked every detail," notes Gladis, a 13-year veteran of the pre-cast business. "Jay and Reimund even alerted us to a problem with our original plant wiring that had been impacting our operations all along. That really gave us confidence in their technical knowledge and commitment to success."



100,000 sq. ft. Conewago precast production facility features Spancrete® hollow-core plank and wall panel extrusion system and full PCS Computer Control System from ACS. Fill time for one 800-foot casting bed has been cut by nearly 50% thanks to improved control.

Installation of the new ACS control system was carried out over a three-day weekend. The rest of the week was spent running production batches under Richter's watchful eye.

The Results

According to Gladis, plant performance increased the day after installing the new ACS controls. "We were able to pour 465 yards of RCC and 103 yards of hollow-core for a total day of 568 yards, which was unheard for us," Gladis recalls. "Reimund was very happy that he could be there to see us stress our systems to the max. If it was going to break for any reason on initial start-up, he wanted to be there to sort things out."

Conewago also sent its plant operator to ACS headquarters in Greenland, NH, to participate in the ACS P3 training program, an extensive hands-on course. "Our operator, Mike, really enjoyed the P3 training sessions at ACS," Gladis comments. "It was a comfortable atmosphere and he really learned the finer points of plant operation using the new controls."

Conewago has been able to reduce the time required to lay an 800-foot bed of Spancrete hollow-core panels from nearly four hours to just two. "I'm going to have to upgrade the hydraulics in my Spancrete machine in order to keep up with the batch plant!" Gladis says.

"Not only are we producing more in less time, we have also cut our waste to near zero. Consistency and quality are much easier to maintain with the new ACS controls. We've improved operations in almost every area, including labor savings, quality, mixing time, color blending. Best of all, we have an on-going relationship with ACS and can count on their service and support, which was something we didn't have before." ■

TRAIN FOR PERFORMANCE WITH P3



With the P3 Training Program from Advanced Control Systems, you'll get in-depth instruction in running your PCS Computer Control System or SmartMix System in a relaxed, friendly environment. The knowledge gained during the P3 program can help improve batching consistency, uptime, product quality, and labor costs. Seated above, Miguel Reyna of Hanson Pipe & Precast learns the finer points of the ACS plant control system from P3 Program Manager Hugh Scott. This multi-day workshop will teach your plant operators and mechanics the art of troubleshooting, problem solving, basic electrical comprehension, and computer control skills. This targeted learning experience will pay for itself in savings on service, downtime avoidance, production optimization, and much more.

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ACS is pleased to announce that Weldon Mitchell of Mitchell Industrial Consultants, Inc. has joined the ACS family and will provide cover to the states of Penn., N.J., Del., Md., Va. and W.V. He can be reached at his office at (410) 635-3360 or on his mobile phone at (443) 340-0311. His fax is (866) 591-8211.