



Controls Inc. has worked with BakerCorp, one of the largest containment, pump, filtration and shoring companies in the world, to develop controls for the company's engine-powered pumping systems.

## CONTROLS FOR CONTAINMENT

Work with containment/pumping specialist BakerCorp highlights growing capabilities of Controls Inc.

**W**hen a company starts out in any type of business, it usually focuses on a core business and often won't stray too far from it. Yet often as a company grows, it casts its nets wider — adapting its technology to different applications and different markets.

Thus has it been with Controls Inc., the Ohio-based manufacturer of electronic control systems. The company, which began as a supplier of engine control and monitoring systems pri-

marily for generator set applications, has gradually broadened its scope to include equipment such as pumps and light towers.

And now its net has been cast even further, according to Bob Cowen, Controls Inc. president. "Our product line continues to expand in both the standard and application-specific areas of the industrial engine world," he said. "Customers continue to be referred to us that are looking for a specific solution for their products. This



has taken us into new markets such as day tank monitoring, APU control systems, ground support systems, J1939-based modules and other under-served areas of the market."

Key to that adaptability is Controls



Controls Inc. and BakerCorp collaborated on the development of the control systems on several of BakerCorp's diesel-driven pumping systems utilizing one of Controls' EngineMaster product line controller platforms. The EngineMaster product line is designed to provide extensive engine monitoring, control and protection capabilities. A range of parameters, including engine hours, engine rpm, oil pressure, water temperature, battery voltage and fuel rate or level, is displayed continuously on a large 32-character LCD display, along with fault codes, service interval messages and other information.

Inc.'s approach to product design. "Our philosophy is to maintain complete design control over all aspects of the product from hardware and firmware design through final product assembly," Cowen said. "With flexible product platforms and complete control over all aspects of the product, controller function can be closely matched with application requirements."

A good example of where that philosophy has paid off is Controls' work with BakerCorp, one of the largest containment, pump, filtration and shoring companies in the world. Headquartered in Seal Beach, Calif., and with more than 90 locations nationwide as well as operations in Europe, Canada and Mexico, BakerCorp offers integrated solutions to a range of markets including oil and gas, construction, chemical, manufacturing, refining, municipal, industrial services, environmental remediation and wastewater storage and treatment.

Controls Inc. supplies customer-specific control panels to BakerCorp that are used to control and monitor engine-powered pumping systems. "Baker's pumps and liquid containment equipment systems are often used in environmentally sensitive applications or under harsh conditions, therefore the



quality and reliability of the controller is vital to the success of the system operation," said Lore McKenna, BakerCorp marketing manager. "When BakerCorp initiated its search for a company to design and manufacture our control panels, we looked for companies that could accommodate Baker's stringent requirements of quality and Baker's expectations for a superior product that includes an array of features and benefits at a reasonable cost."

The two companies collaborated on the development of the control system — used on several of BakerCorp's diesel-driven pumping systems — utilizing one of the Controls' EngineMaster product line controller platforms.

The EngineMaster product line —

available for both non-ECU and ECU engines — is designed to provide extensive engine monitoring, control and protection capabilities. A range of parameters, including engine hours, engine rpm, oil pressure, water temperature, battery voltage and fuel rate or level, is displayed continuously on a large 32-character LCD display, along with fault codes, service interval messages and other information.

In addition, the system offers a number of throttle control capabilities, remote and local start/stop, and the ability to monitor other equipment systems/components for a completely integrated control solution.

Having that variety of engine speed control options, external system in-

tegration capabilities and logic processing, the EngineMaster controls can be configured to the specific needs of any application, Controls Inc. said. Engine control parameters can be set at the factory or made available through a front panel touch pad, the company said.

"The control systems were tailored specifically for Baker's needs, said McKenna. We gave Controls Inc. a list of requirements and capabilities for both the hardware and software. Controls Inc. worked hand-in-hand with Baker to engineer the best solution to our requirements, resulting in a superior control panel supported by software developed exclusively for Baker.

"The result is a digitally controlled system that allows the end user to easily program the operation of the pump to the distinct specifications of the job application, saving both time and money." The control system is housed in a polycarbonate enclosure that is rated NEMA 4X. The controller includes plug and play features, with all engine, float and transducer connectors incorporated into the enclosure. "Flexibility is built into the system, allowing the end user to control the system through mechanical floats, pressure transducers and level transducers," McKenna noted. "The unit is digitally controlled and easy to configure.

"Unlike traditional control systems, which require configuration through dip switches inside the unit, the Baker control system is easily configured using menu buttons and readouts located directly on the backlit display panel. To assure that unauthorized personnel do not make parameter changes, the control panel is pass-code protected. Finally, the controllers are expandable and upgradeable."

McKenna said the pump controllers "have successfully operated in the field" for nearly two years. To date, the controls have proven to be highly reliable and we have not experienced any uninterrupted operations or shutdowns due to the control systems," she added.

As its work with BakerCorp indi-

cates, Controls Inc. has come a long way from where it began and that is also reflected by the company's physical growth. From its humble beginnings in the 4000 sq.ft. facility in Sharon Center, Ohio, the company has grown into an 8000 sq.ft. site in nearby Medina. "We are looking to build a 15,000 sq.ft. facility in the near future," said Cowen. "Plans have been drawn and a site selected.

"The facility will allow us to streamline production and handle our inventory better. Additionally, our engineering and product development areas will continue to increase in size. The number of production employees has doubled and we have brought in additional personnel for administrative and customer support areas."

Controls is also moving to expand into new product lines. "We are also beginning to expand our standard product offerings," Cowen said. "For example, the latest product platform under development (the C3 platform) is targeted as a standard control product for common power unit applications and should be available in the first quarter of 2009.

"And over the last several years, Controls Inc. has expanded beyond the core generator and engine control markets with products as simple as the LevelWatch to prevent tank overfills and spills to the sophisticated 1410-000 platform that is in many ways similar to a PLC. We've implemented a number of control products across a broad range of industrial applications and we expect that to continue." **dp**

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