



Orenco[®]

C O N T R O L S

Custom Solutions for Every Application

Custom control panels and telemetry systems for

- Residential and commercial installations
- Municipal water and wastewater systems
- Manufacturing controls
- Original equipment manufacturing (OEM)

We Speak the Language of Controls

Your Best Value In Any Application



Orenco Controls builds control panels for residential, commercial, municipal, and OEM applications.



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Whether you need a simple alarm panel with a single custom component or a highly sophisticated panel that is totally customized, Orenco Controls will be your best value. Here's why:

Outstanding Pricing – Because of the high volume of panels we produce for our parent company, we have direct relationships with component manufacturers. This lets us produce small orders of custom panels at high-volume prices. Plus, we value-engineer our panels to simplify componentry and minimize assembly time, reducing costs even more.

Outstanding Turnaround – Consistently, our customers tell us that we deliver panels in half the time of other manufacturers. That's because we use our big-shop capabilities on your custom project.

Outstanding Components – We use touchsafe components from names you trust: Siemens®, GE®, IDEC®, Square D®, Cutler-Hammer®, ABB®, Danfoss®, and Rockwell Automation®. We can also integrate your preferred or proprietary components into your panels.

Outstanding People – Our controls experts have, collectively, hundreds of years of industry experience. We can build to your specs, improve your existing product, or design something entirely new.

Outstanding Support – Every Orenco Controls panel comes with detailed wiring diagrams, complete installation and operating instructions, and toll-free technical support during installation. Our UL508 shop has the certifications, equipment, and processes to produce an outstanding panel for you, every time. And, of course, every panel comes with a three-year warranty.

**3-Year
Warranty**

R.C. Worst

"Orenco is good at turning things around, getting us a quote and then, once we get the go-ahead, turning around a good submittal package that's right the first time. That takes a lot of headache away from me."

~ Ken Worst, Owner - Coeur d'Alene, Idaho



A Range of Custom Options

Contractors, engineers, and manufacturers benefit from Orenco Controls' 30 years of experience building standard and custom panels. Orenco specializes in smart controls:

- Programmable logic
- Variable frequency drives
- Reduced voltage starters
- Remote telemetry

Our assembly facility is equipped to build virtually anything to your specs, whether you need one unit or thousands.

Panel Applications

Water systems

- Booster stations
- Storage tanks
- Community wells
- Irrigation systems
- Rainwater collection systems
- Greenhouse controls

Wastewater treatment

- Lift stations
- Packed bed filters
- Grinder systems
- Drip dispersal
- Aerobic treatment systems
- UV disinfection

Industrial monitoring

- Motor/valve controls
- Alarm systems
- Oil/water separators
- Energy management systems
- HVAC

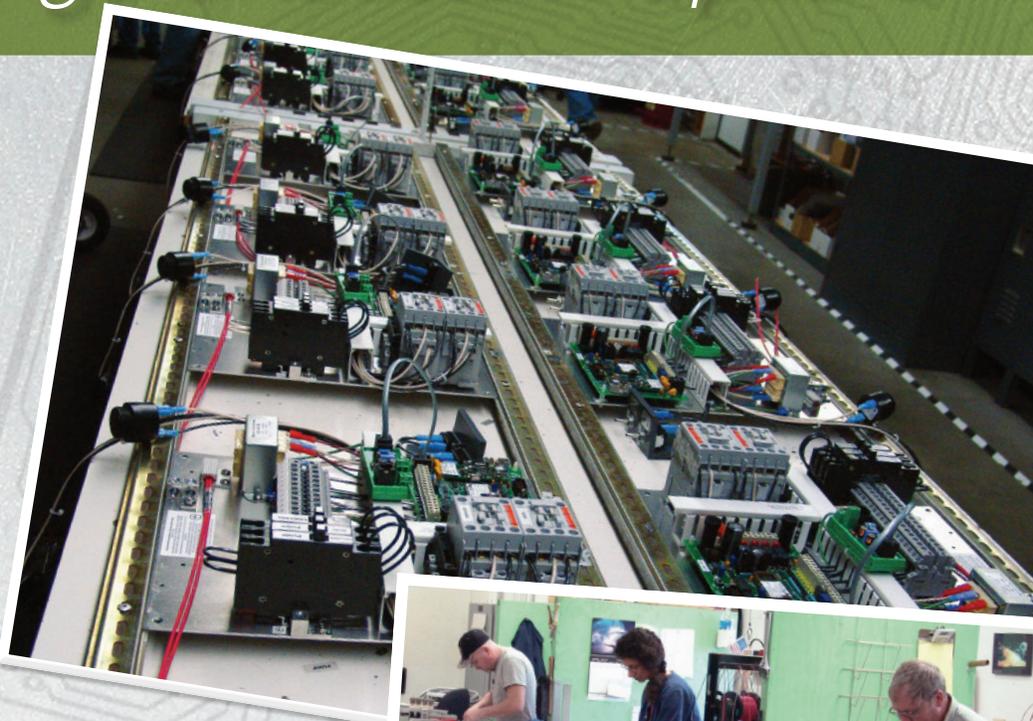
Environmental monitoring

- Stormwater monitoring
- Groundwater monitoring/treatment
- Solid waste leachate



Certifications Available

- **UL 508A** – U.S. and Canada (Service Entrance Rated also available)
- **UL 698A** – Hazardous Locations, US and Canada
- **CE Marking** available (and 50 Hz panels)



Call **800-348-9843** for a quote, or submit a quote request online at www.orencocontrols.com.



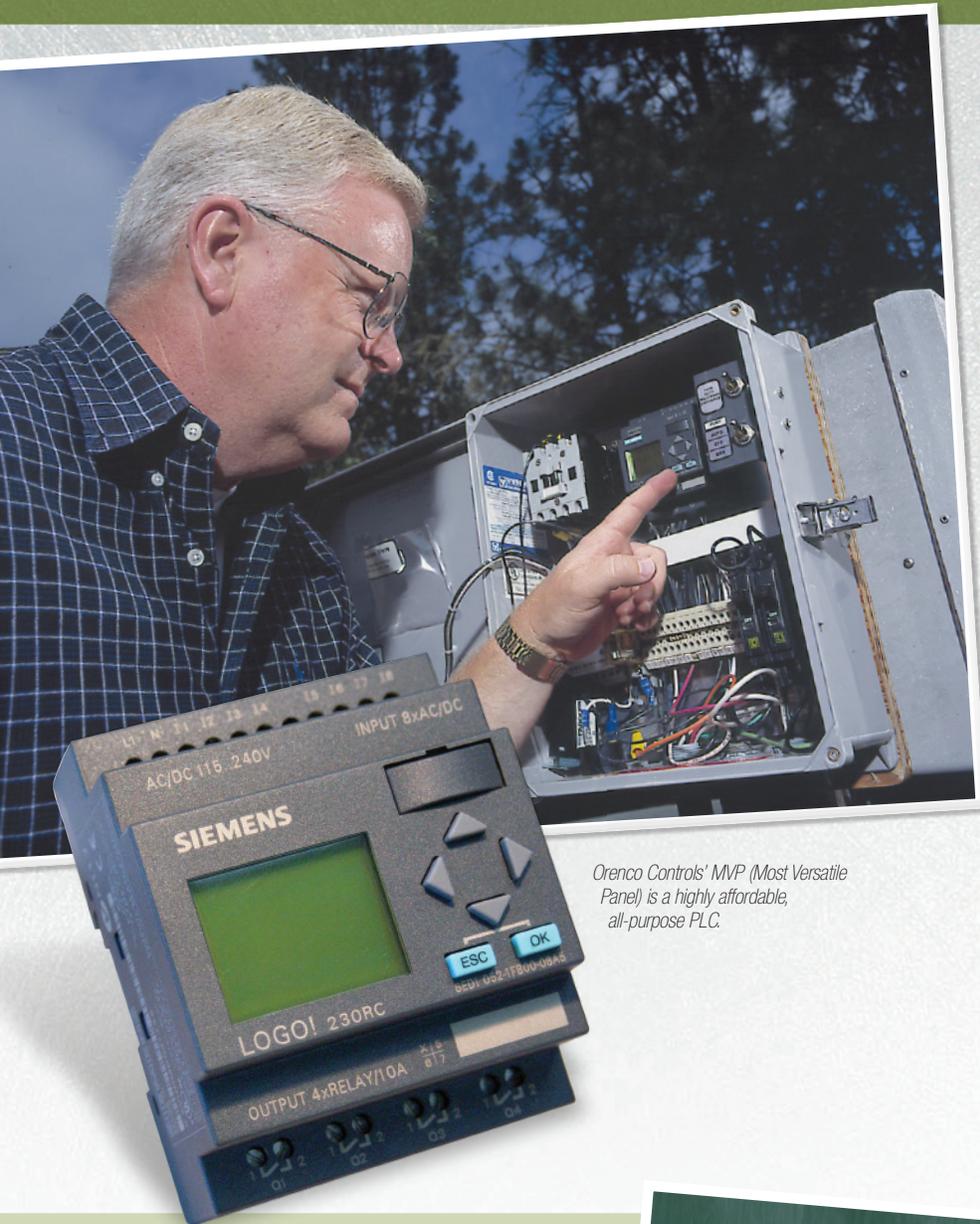
VFDs Run Big Pumps Efficiently

Variable Frequency Drives feed motors only as much power as they need to do the job, saving energy. At Bristol Motor Speedway in Tennessee, Orenco Controls built a PLC-controlled panel that uses variable frequency drives to soft-start a pair of 150-hp (112 kW) pumps that handle the speedway's stormwater. "We use VFDs for a variety of reasons: eliminating inrush current to motors [which avoids brownouts], avoiding damage to the motor during starting and stopping, and reducing surge flow at the wastewater treatment plant," said Jeff Brownfield of Specialized Operations Services, the system installer. "At Bristol, Orenco provided excellent field support."



For a quote: (800) 348-9843 • (+1) 541-459-4449 • www.orencocontrols.com

Programmable Logic Units Put You



Orenco Controls' MVP (Most Versatile Panel) is a highly affordable, all-purpose PLC.

Programmable logic controllers (PLCs) can combine the functions of relays, timers, alternators, elapsed time meters, and cycle counters. The result? Compact panel designs, lower cost, and increased reliability.

PLCs are modular, so we can size your panel for your current needs and build in expansion ports for future system growth.

Orenco's engineers pre-program the panels. Operator interfaces ranging from simple text displays to rugged touchscreens are available.

User-friendly features include ...

- Easy-to-read LCD screen with built-in programming keys
- Optional removable EEPROM cards for "plug & play" upgrades

Affordable PLCs Our Specialty

Orenco Controls' MVP (Most Versatile Panel) is a highly affordable, all-purpose PLC. Engineered with water and wastewater designers and operators in mind, MVPs allow panel designers to incorporate numerous control functions that are difficult or impossible to build into electromechanical panels.

The MVP's PLC can accommodate ...

- Time meters and counters
- Multiple motor controls
- Multiple timer settings
- Different audible/visual signals for different alarm conditions
- Multiple message screens

MVP Excels in Any Game

When one of our OEM customers was developing a water treatment device, he equipped the prototypes with manual timers to backflush the filters. Then, after production was scaled up to commercial quantities, he wanted to use a PLC to control the backflush. The customer said, "I sent Orenco a PLC and asked if they could UL-label it. But their rep said, 'We have something on the shelf that would work that is already labeled.' The MVP turned out to be less than half the cost of our component. Now we have three different models with the MVP."



u In Control

"I've always liked the proactive approach that Orenco takes. I have two criteria regarding any product specifications: the product does the job and the company provides technical support. Orenco excels in both, which makes me look good and my clients happy."

~ David Monihan, Jr., PE, RLS - Arizona



PLCs Control a Large-Scale Fiberglass Molding Process

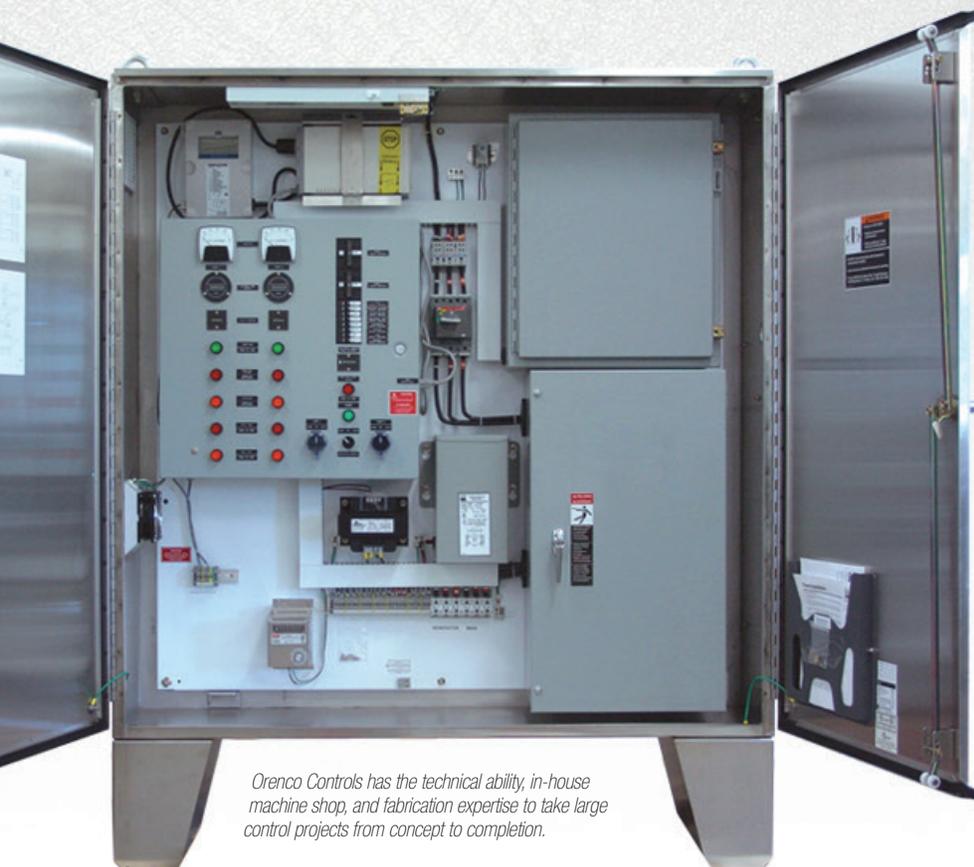
Our parent company, Orenco Systems, didn't have to look beyond its own backyard when it needed controls for a state-of-the-art resin transfer molding system. Orenco's tanks and filter pods are some of the world's largest resin-transfer-molded fiberglass parts. The pictured panel controls motors that open and close one of Orenco's molds, control the flow of resin, and control the mold's temperature.



"I got a call from a contractor at 4:00 pm on a Friday (of course). He told me he'd hit the wires on a control panel and the alarm was going off. It was a 14-pump Orenco custom panel. He'd pulled the wiring right out of the terminal blocks, and one block was completely disconnected. The wiring to the logic controller was pulled out, too.

Because the wiring schematic was inside the door, and because the logic controller's indicator light numbers matched up with the ones in the schematic, I was able to get everything working again in about an hour. I couldn't have done it otherwise. I want to thank Orenco's electrical department for being so consistent!"

~ Dan Bush, Septic Technologies, Inc.



Orenco Controls has the technical ability, in-house machine shop, and fabrication expertise to take large control projects from concept to completion.



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Telemetry Gives Total Control



Bringing the Power of SCADA to Every System

Facility managers and operators know that telemetry gives the ability to efficiently monitor and control the performance of their equipment, in real time. But they often think their budgets are too small to afford it. Orenco has developed a unique telemetry panel — TCOM™ — that provides powerful SCADA functionality at an affordable cost.

Affordable Telemetry

The cost of a typical TCOM panel is similar to that of a PLC-based panel. But TCOM includes the key features you'd expect from any SCADA system:

- Remote access and control
- Automatic call-out to pagers or e-mail capable devices during alarms
- Data logging with time- and date-stamping
- Ability to export data into commonly used spreadsheet and word processing programs
- Ability to remotely upload programming and firmware updates
- Industry standard MODBUS device-to-device communication support

Our SCADA is affordable because our standard TCOM panels have built-in communication protocols supported with widely used software already installed on, or easily added to, most computers. A fully featured menu-driven text interface can be accessed using widely available VT100 terminal emulation software. Panels on a network can be accessed using a standard web browser. We also offer our own software with additional features.

Optional Add-ons

We offer multiple options for user-friendly graphical interfaces with local and/or remote access. A touchscreen can be included in the panel and/or customized software is available for personal computers. When your budget allows, we can include one or more of these options with your TCOM system.

These optional graphical interfaces are shown in the photos on this page. And the case study, below, shows how a standard TCOM system can grow, as a client increases the size and sophistication of its controls.

A sample of our optional graphical interfaces and touchscreens.



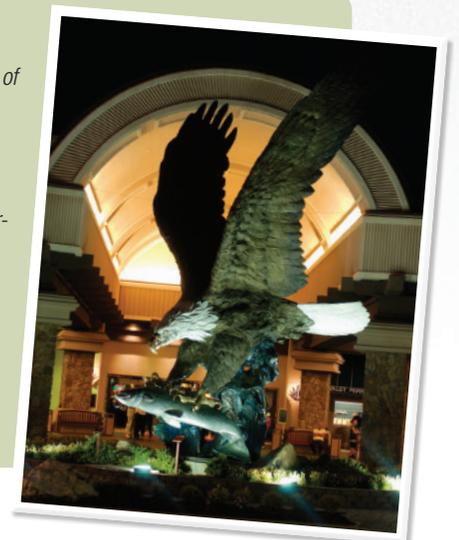
TCOM™ Panels Network with RSVIEW® SCADA

To support development of its Seven Feathers casino resort in Canyonville, Oregon, the Cow Creek Band of the Umpqua Tribe of Indians has built water and wastewater treatment infrastructure. And as the system has grown, Orenco's panels have been reconfigured to work with an increasingly complex monitoring and control system.

In 1994, Orenco supplied controls for the original recirculating sand filter that treated wastewater from the casino and the adjacent hotel. Ten years later, when the tribe built a truck stop, a second hotel, and an RV park, it purchased seven TCOM panels for the water and wastewater systems that served the expanding development. The panels were programmed for peer-to-peer networking via a fiber and Ethernet network, with operator control and monitoring via TELNET.

As the system grew, a SCADA system using Allen-Bradley's RSVIEW® software was purchased. Orenco reprogrammed its panels to work within the new system. No new hardware was required. Now Orenco's TCOM panels communicate alongside various PLCs and other devices under RSVIEW's supervision.

"There's no doubt that when you buy something from Orenco, it does exactly what Orenco says it will do," said Brian Boswell, senior project engineer for the system. "I can't imagine trying to run our wastewater and potable water plants without relying on Orenco's TCOM telemetry panel and their knowledgeable programmers."



Old School is Cool



Our UL508 facility includes two production lines: one optimized for high-volume production and one optimized for small-volume orders. So whether you need hundreds of panels or just one or two, we can meet your needs.

Electromechanical Panels Take Abuse

When you don't need a panel to call you in the middle of the night, electromechanical panels from Orenco Controls are your best value. Using mechanical relays instead of digital logic, electromechanical panels work with all kinds of sensors, switches, and motors. For these panels, extreme temperatures, hazardous atmospheres, and corrosive environments are no problem.

Electromechanical panels are designed for basic simplex or duplex motor/pump applications. They use standard components generally available from local vendors, for ease of replacement, and they can be easily customized to meet your specifications.

Electromechanical panels include ...

- Simplex (one motor/pump) Alarm Panels
- Simplex Control Panels, with motor contactors to increase system life
- Duplex (two motors/pumps) Control Panels, with alternating or simultaneous operation

SOPs for Quality Control

As a UL-certified 508A and 698A shop,* we are certified and inspected to the highest standards of safety and quality control. Earning these certifications means that we adhere to hundreds of safety and quality standards that protect everyone, especially your customers and your reputation.

Specifically ...

- We functionally test every panel we build; we also do a visual inspection of every panel and we perform wiring "pull tests."
- We build to a consistent set of wire specs and a wire order list, as well as photo documentation of previous builds.
- We build with calibrated tools and standardized settings, such as torque settings on screwdrivers.
- We use an automated (bar code) process for managing procurement, inventory, and product tracking.

* We also follow CE standards for European markets.

We confidently warrant every panel for a full three years. Call us for a facilities tour!



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Expert Tech Support



Our Panel of Experts Provides Support

Our engineers work directly with distributors, contractors, and engineers, one-on-one. If you're not sure what you need, call and tell us about your application. We'll reply promptly with your quote and the turnaround time for your order. We can also value-engineer your existing product, saving you money with a new design or alternative components. If you know what you need, you can just fill out our electronic quote form ("Request a Quote") at www.orencocontrols.com.

To ensure that your system gets up and running correctly, every Orenco Controls custom panel comes with detailed wiring diagrams, complete installation and operating instructions, and toll-free technical support during the installation process.

We also provide original equipment manufacturer (OEM) services to numerous companies. We'll build to your specs, or we can work with you on the design of your product. Call for more information.

About Orenco Controls

Orenco Controls is a division of Orenco Systems®, Inc. Founded in 1981, Orenco researches, designs, and manufactures decentralized wastewater systems and the panels that monitor and control them. Orenco now has approximately 250 employees, and the controls division builds more than 20,000 panels a year.

Orenco's controls division has taken the lead in developing a number of innovative and affordable wastewater controls products, including the Siphon Sitter™, the MVP™ digital programmable controller, the VeriComm® Remote Telemetry Control Panel, with its Web-based Monitoring System (for residential applications), and the TCOM™ Remote Telemetry Control Panel (for commercial and municipal applications).

Orenco distributes its products through a network of approximately 150 distributors and dealers in North America, Australasia, Europe, Africa, and Southwest Asia. Panels designed and built by Orenco Controls have been installed in more than 40 countries, serving a variety of markets and applications.



"Orenco Systems®, Inc. has a well-established record of supplying control panels and systems to <our company>. They manufacture high quality products and their support and responsiveness is unparalleled."

Major Pump Manufacturer

"I had three repairs, side by side ... There is a great elevation change and a long distance from pump chamber to drainfield ... I called Pete Lombardi <at Orenco> ... He asked me for some of the particulars, fed them into his computer, started talking with me and we developed a workable, satisfactory solution to all three sites ... I had neglected to tell him these had to be submitted right away ... He worked with me Christmas Eve and Christmas Day until I had all I needed for submittal. That meant more to me than I have words to express it ... It has made a loyal customer out of me."

David Ray - Washington



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