PROCESS SOLUTIONS

THE NORTHWEST'S LARGEST CONTROL SYSTEMS INTEGRATOR

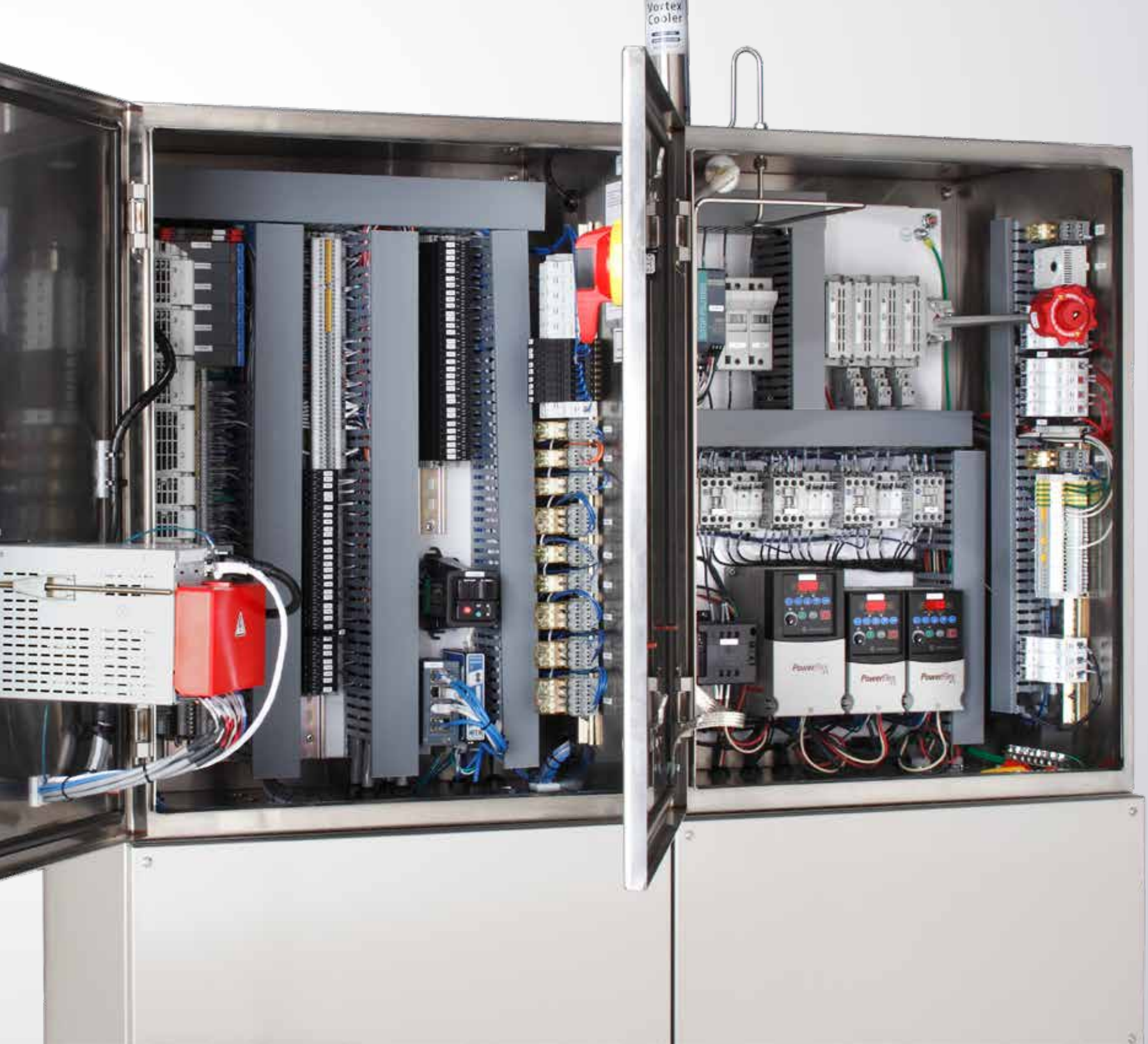
PROCESS SOLUTIONS, INC.

Established in 1987, Process Solutions is the Northwest's largest control systems integrator. With a focus on providing industry-leading quality and service, Process Solutions offers a wide range of control system solutions, including UL-508A control panel design and manufacturing, PLC and HMI programming, SCADA integration, refrigeration control systems, and industrial software. Process Solutions also offers a range of control system services, including electrical design, on-site and remote support, commissioning, and documentation.

AVEVA CERTIFIED System Integrator — Certified Operate

SILVER System Integrator — A ROCKWELL AUTOMATION PARTNER

Solution Partner — Automation Drives — SIEMENS


Vortex
Cooler

INDUSTRIES WE SERVE

FOOD + BEVERAGE

PHARMACEUTICAL + BIOTECH

WATER + WASTEWATER

ENERGY PIPELINES + UTILITIES

AEROSPACE

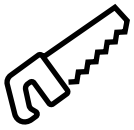
HVAC + COMMERCIAL BUILDINGS

GOVERNMENT + MUNICIPALITIES

SORTING + FULFILLMENT

ENERGY MGMT + REFRIGERATION

MINING



WOOD PRODUCTS

DATA CENTER AUTOMATION

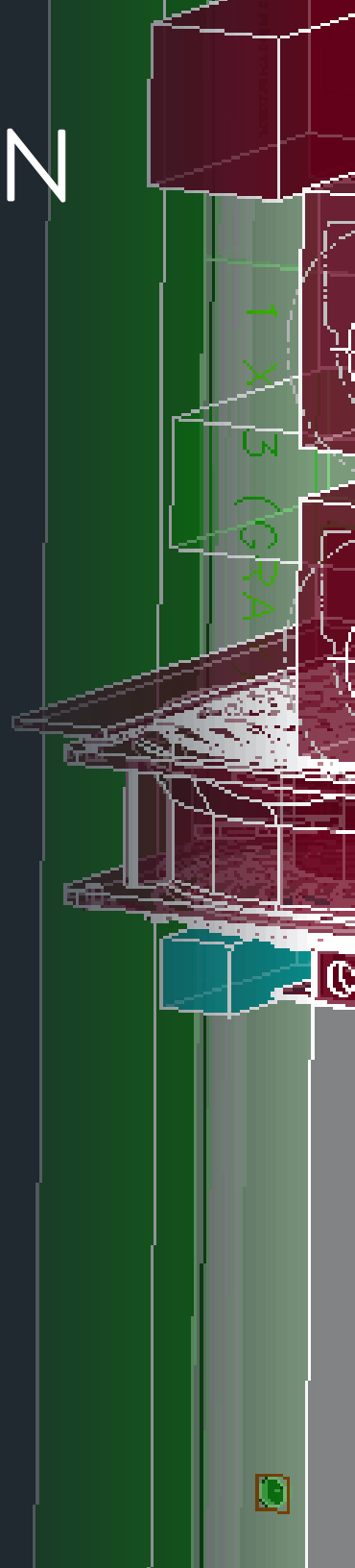
DESIGN + DOCUMENTATION

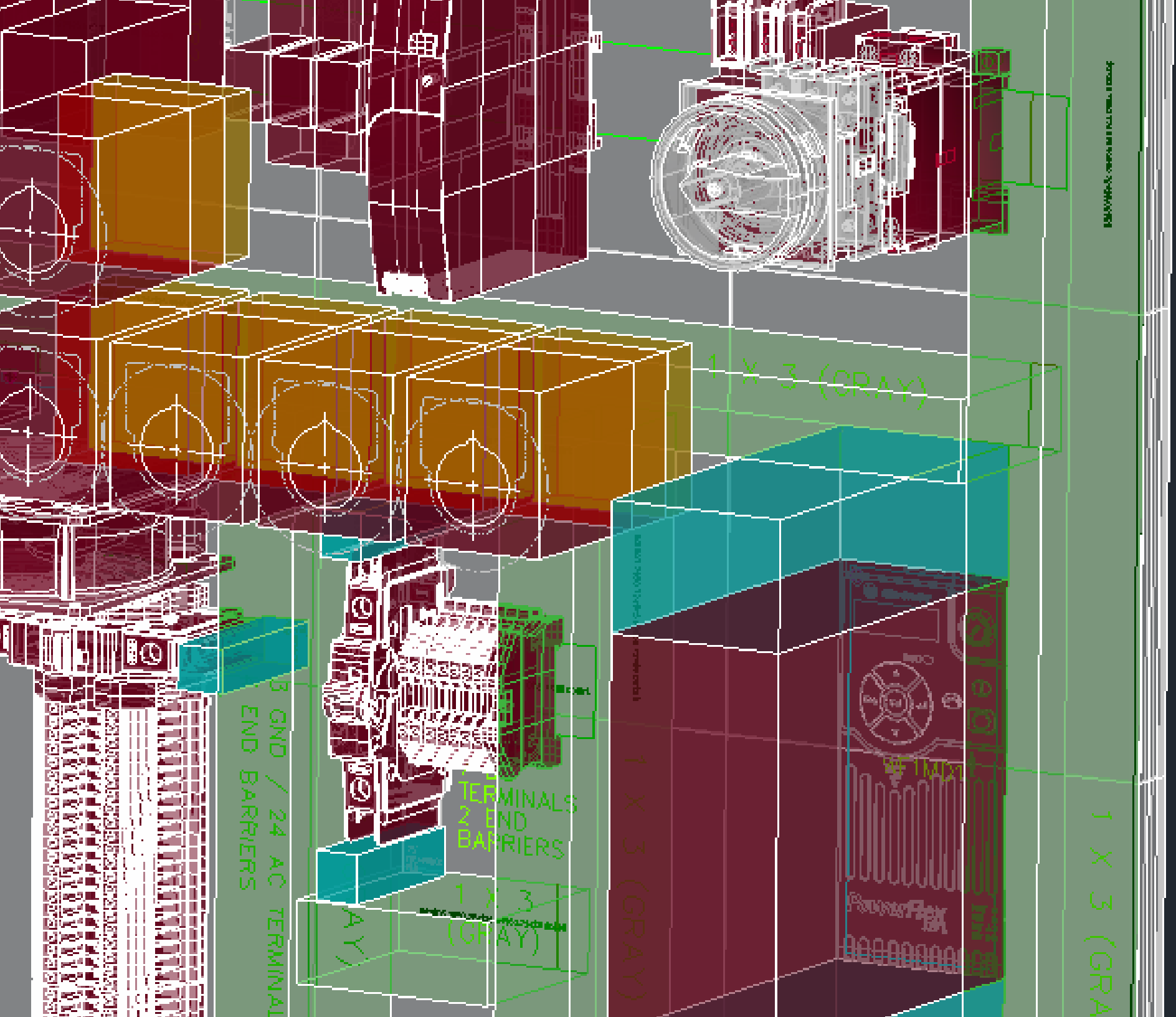
DESIGN

Creation of custom designs for new and legacy systems. All drawings are template-based using AutoCAD macros. Our techniques create an efficient design process with recognizable and easy-to-understand drawings.

DOCUMENT

Our Engineering and CAD departments can create most project-related documents you may require, including functional specifications, test manuals, software design documents, O&M manuals, system drawings, P&ID, and network drawings. Drawings for FDA-level documents are a particular specialty.




1 X 3 (GRAY)
TERMINALS
2 END
BARRIERS
1 X 3
(GRAY)
3 GND / 24 AC TERMINAL
END BARRIERS
1 X 3 (GRAY)
1 X 3 (GRAY)

CONTROL PANELS

CUSTOM

We have designed and built custom control panels for a broad range of industries and applications, from OEM machinery and motor controls to professional sports stadiums and rocket propulsion systems. This depth of experience enables us to provide the optimal solution for your specific application and offer design recommendations when possible for improved functionality, reliability, and cost.

BUILD-TO-PRINT

Process Solutions provides build-to-print services for clients with existing control panel designs. These services entail reviewing designs to ensure compliance with industry standards and regulations, including UL and NEC, and offering recommendations when possible for improved manufacturing efficiency and cost. Process Solutions also provides parts purchasing, control panel assembly, wiring, factory acceptance testing, documentation, and system commissioning.

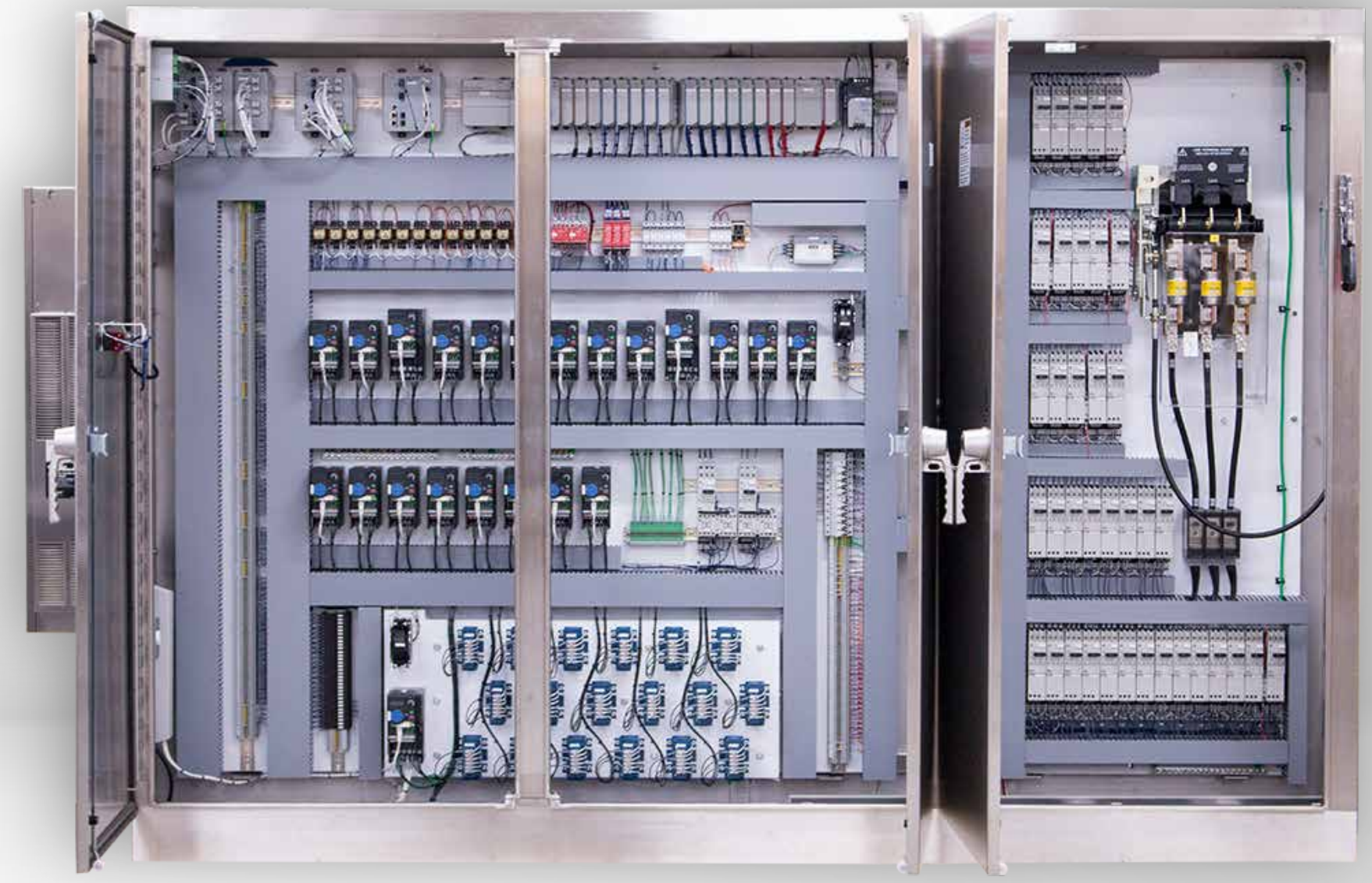
PANEL FABRICATION + MILLING

Our automated enclosure and panel mill provides quick, clean, and precise cutouts of any shape or size. Cutouts can be made in mild and stainless steel, plastic, and fiberglass. There are no minimum order requirements, and our mill can accommodate enclosure dimensions up to 88" x 88" x 94". Quick lead times on enclosure and panel milling available.

UL CONTROL PANEL SHOP

Process Solutions is a UL-508A, 698A, 1203, and 1604 panel shop. Beyond general purpose panels, our capabilities include designing and building dust-ignition-proof panels and panels for hazardous locations. Process Solutions is also a permitted electrical contractor.

UL-508A
INDUSTRIAL
CONTROL PANEL
MANUFACTURER



PLC INTEGRATION

PLC MIGRATION + UPGRADES

As legacy PLC-5 systems and other outdated PLC platforms age, replacement parts become harder to find, and maintenance becomes increasingly expensive. To help clients modernize their controls, Process Solutions provides comprehensive PLC migration services consisting of updating system schematics, converting existing logic and programs to the new PLC platform, and thorough system testing to ensure full functionality and compatibility.

PLC CONTROL PANELS

Process Solutions provides complete PLC control panel design, build, programming, and commissioning services. Our team of skilled PLC programmers has hundreds of combined years of experience working with leading PLC platforms, including Allen Bradley, Siemens, and General Electric, as well as most other PLC manufacturers. Every PLC program we develop is tested to meet our high-quality standards and ensure system reliability, functionality, and performance.

PLC SYSTEM INTEGRATION

Process Solutions has over 34 years of experience providing PLC system integration services. We can integrate both new and existing industrial equipment and software, such as HMIs/OITs, industrial robots, vision cameras, and drives, as well as SCADA software and manufacturing execution systems.

Our team of PLC programmers will work with you to gain an in-depth understanding of your process requirements and equipment. With a thorough understanding of your operations, we can develop a high-quality and reliable PLC system that fits your exact application and specifications.

We develop each of our PLC programs with well-structured code that is designed to be modular and easy to understand. Our coding standards can reduce program development time and allow us to create systems that are easier to troubleshoot and modify for future requirements.

SCADA SOFTWARE

MONITOR AND CONTROL

Process Solutions has over 34 years of experience developing custom SCADA solutions for clients across a broad range of industries and applications. SCADA enables local and remote system monitoring and control, as well as alarming, data logging, and reporting functionality. Adding SCADA to your plant can help improve machine uptime, operating efficiency, and overall production performance.

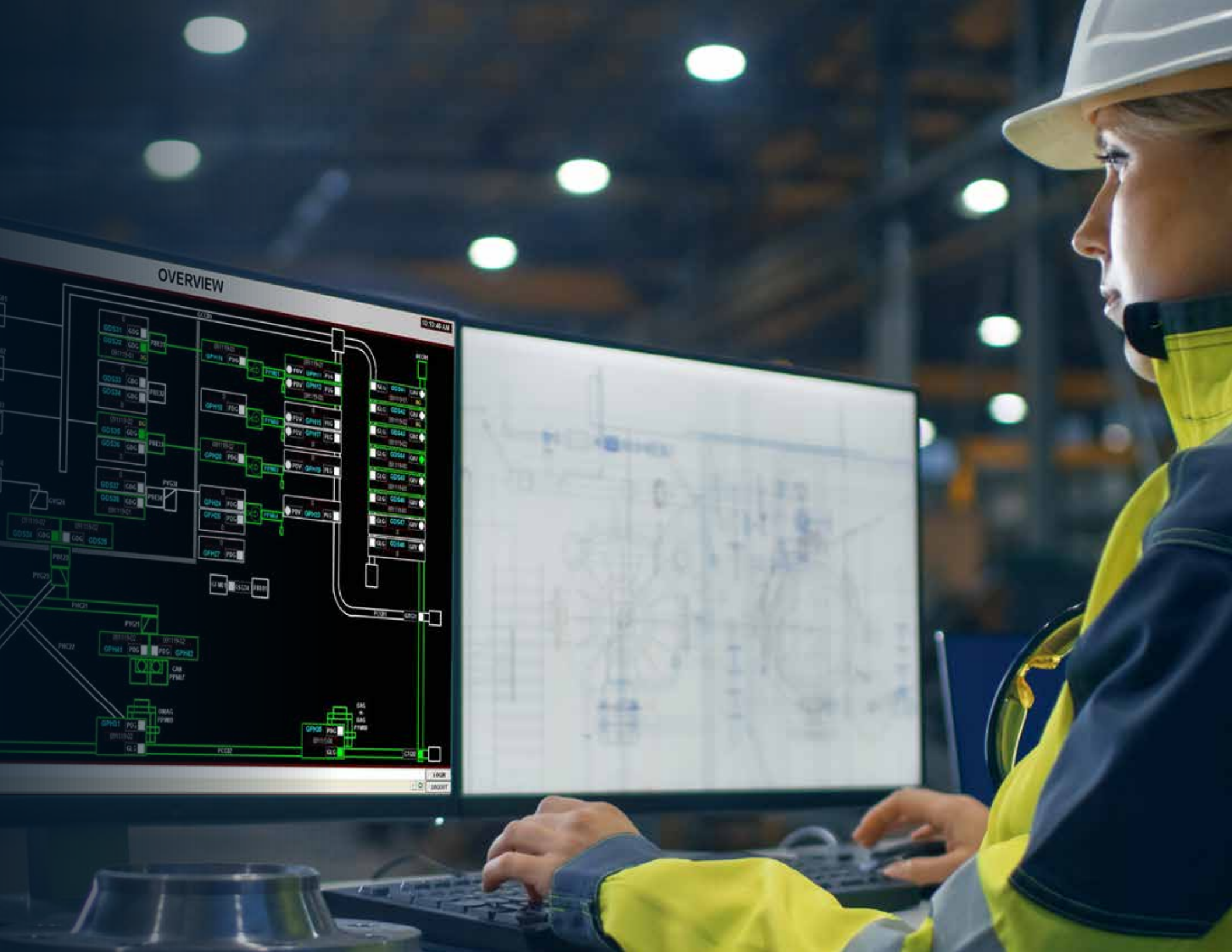
DEDICATED SOFTWARE TEAM

Process Solutions' dedicated team of SCADA engineers are extensively trained and certified on each of the industry-leading SCADA platforms. Our engineering team will work with you to gain a complete understanding of your current systems, equipment, and functionality requirements to develop a SCADA system that meets your objectives. Our engineers also provide remote or on-site service, training, and troubleshooting.

SOFTWARE PLATFORMS

Process Solutions designs custom SCADA applications on industry-leading software platforms, including Rockwell FactoryTalk, Siemens WinCC OA, AVEVA System Platform, Intellution, and Ignition. Our experience on these platforms allows us to evaluate your requirements and make functionality recommendations to help you accomplish your goals.

When developing SCADA software, we take extra steps to write quality code that is well structured to simplify system maintenance and future feature additions or updates. Our user interfaces are designed with ease-of-use in mind while also providing a highly functional and modern user experience.


OVERVIEW

DAQUERY

AUTOMATED MACHINE DATA COLLECTION

DAQuery provides automated machine data collection and production analytics to deliver insights into system health and performance through detailed reports, live trends, KPIs, and customizable dashboards. With a simple plug-and-play setup process, it only takes minutes to connect DAQuery to your equipment and start making data-driven improvements to your operations.

To collect your machine data, DAQuery directly interfaces with sensors, network switches, and other IIoT devices that are connected to your network. DAQuery can also be integrated with PLC systems for data collection, though a PLC is not required.

REAL-TIME DATA

Monitor machine health and performance in real-time to discover where inefficiencies are occurring in your operations. Make extended downtime a thing of the past with instant alarm notifications and downtime tracking to help quickly diagnose and correct problems. Display live and historical data with trends, tables, and dashboards for in-depth analysis to help make better-informed decisions.

BROWSER-BASED APPLICATION

Display dashboards, trends, and live-data feeds on multiple screens across your facility with DAQuery's browser-based application. Once displayed, DAQuery's simple and intuitive interface provides ease of use to keep the focus on your data while maintaining the power and capability needed for in-depth analysis. No complex setup process or time wasted navigating menus.

PRODUCTION REPORTS

DAQuery includes various pre-built production reports, such as batch, downtime, throughput, and KPIs with user-definable report parameters, such as time ranges and equipment types. All reports are exportable to .CSV, .XLSX, or .PDF file formats and can be configured for delivery directly to your inbox via email or SMS.

DEPLOYS IN MINUTES

DAQuery will automatically discover all available equipment and begin logging data in real-time upon connecting the provided edge device to your network via Ethernet. The setup takes just minutes to complete and doesn't require any specialized training or help from a software engineer.

DAQuery

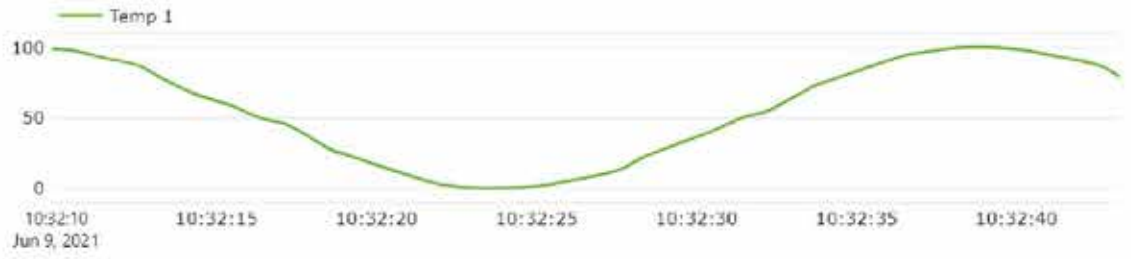
Autoclave Cycle Overview

Datapoint

Temp 1

87 °C

Trend



Datapoint

Temp 2

238 °F

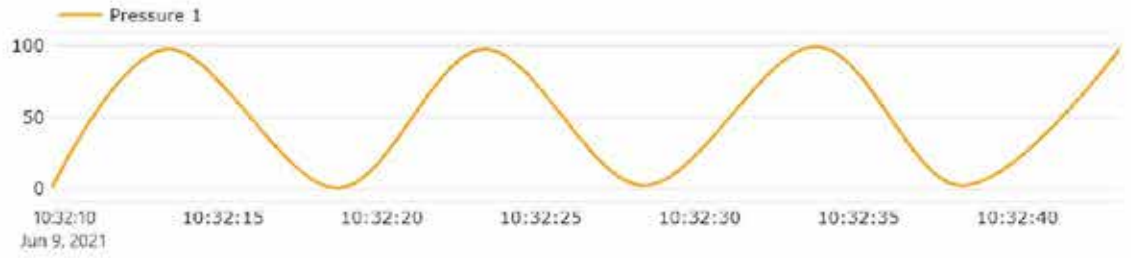
Trend

Datapoint

Pressure 1

79.39 psi

Trend



OEM SUPPORT

PARTNERSHIP INVESTMENT

Process Solutions invests heavily in our staff, tooling, and resources to ensure long-term success with our OEM partners. Our partnership investments include engineer training and certification, as well as acquiring specialized tools and software systems. Process Solutions has numerous long-standing relationships with large OEMs that we have supported for years.

MEETING YOUR REQUIREMENTS

Process Solutions works closely with our OEM partners to gain a complete understanding of their systems and operations to ensure that we provide the optimal control solutions to meet their objectives. Process Solutions also provides numerous OEM services, including product standardization, design modification and optimization, private labeling, component purchasing, field support, and factory acceptance testing.

SEAMLESS INTEGRATION

Process Solutions seamlessly integrates with our partners to become an extension of their team. We often accompany our partners on sales calls and wear their branding to job sites and events to portray ourselves as part of their team. We believe in providing full project integration over just system integration.

OEM PANELS

In addition to build-to-print control panel manufacturing, Process Solutions also provides custom OEM control panel design, build, and commissioning services. We can design custom control panels for any application, environment, and budget.

AIRIXA

ENERGY MANAGEMENT AND REFRIGERATION SYSTEMS

Airixa is a technology platform for monitoring and controlling industrial refrigeration systems, with integrated energy and demand management features. With Airixa, companies can reduce their utility bill and associated energy demand charges by 10-40% without sacrificing production performance.

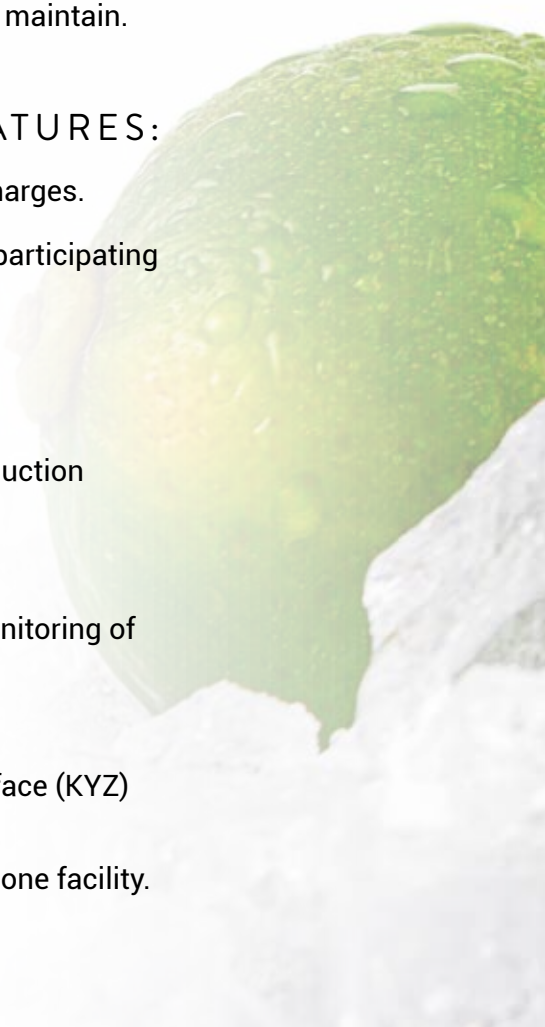
Process Solutions designed Airixa as a non-proprietary system utilizing both Siemens hardware and software components. By creating a non-proprietary system, Airixa has greater parts availability while also being more reliable and easier to maintain.

KEY SYSTEM FEATURES:

- Built with Siemens components, including S7-1500 PLC & I/O.
- SCADA system with data logging, system alarms, and multi-user authentication capabilities.
- Condenser floating discharge pressure control.
- Evaporator fan VFD speed control.
- Compressor optimization.
- All common defrost cycles: hot gas, air, water, and electric.
- Standard compressor interlock features: vessel high level, Freon/Ammonia concentration, and Emergency Stop.
- Integration with instrumentation, including PT1000 temperature sensors and CTI Freon detectors.
- Native iOS and Android applications.

DEMAND MANAGEMENT FEATURES:

- Demand Control – Reduce peak demand charges.
- Demand Response – Generate revenue by participating in utility's DR events, including DRAS.
- Adaptive demand limits (setpoint learning).
- User-selected load reduction priorities.
- Dynamic operation priorities based on production metrics and constraints.
- Equipment system start-up sequencing.
- Detailed energy, demand, and reduction monitoring of individual loads.
- Available load sub-metering.
- Utility-grade power metering or pulse interface (KYZ) integration.
- Support for multiple utility accounts within one facility.



airixa
airixa
airixa

MACHINE AUTOMATION

ROBOT SYSTEM INTEGRATION

Process Solutions' engineers are trained and certified in robot system programming and integration. We offer robot systems utilizing industrial and collaborative robots, and we can design custom solutions for a wide range of applications, including machine tending, pick and place, palletizing, and packaging.

MOTION CONTROL

Process Solutions offers motion control system design and build services utilizing PLCs, motion controllers, PCs, VFDs, and servos. Our capabilities include developing open and closed-loop systems for a wide range of industrial motion applications, including robotics and conveyor lines.

AUGMENTED REALITY

Process Solutions offers augmented reality systems for use in industrial manufacturing applications. Manufacturers can utilize augmented reality systems for numerous applications, including assembly guidance and simulation, maintenance and repair with component identification, heads-up displays with task-relevant information, training, and quality control.

VISION SYSTEMS

Process Solutions utilizes the latest hardware and software technology in every vision system we produce. A 2D vision system allows for in-depth parts inspection and identification, while enhanced 3D vision systems deliver precision guidance capabilities, volume measurement, and the identification of defects on curved and circular surfaces.

MOTOR CONTROL

PANELREADY

MULTI-MOTOR STARTER PANELS

PanelReady multi-motor starter panels are pre-built and designed to create a streamlined ordering process for clients who need simple motor control functionality. PanelReady panels are currently available in 30 amp and 60 amp configurations. Each configuration includes overload and short circuit protection for your motors, as well as pad-lockable disconnects and door-mounted 2-position maintained selector switches. ***PLC, HMI, VFD, and remote I/O PanelReady models are also available upon request.***

THIRTY AMP

- Support for up to 3 motors
- Maximum 7.5 hp per motor
- 15 hp max of combined motors
- Fuses & overloads configured to your motor specifications
- 20 x 16 x 8 NEMA 4 mild steel enclosure
- Pad-lockable disconnect switch
- UL listed

SIXTY AMP

- Support for up to 6 motors
- Maximum 7.5 hp per motor
- 32.5 hp max of combined motors
- Fuses & overloads configured to your motor specifications
- 20 x 20 x 8 NEMA 4 mild steel enclosure
- Pad-lockable disconnect switch
- UL listed

DANGER
Hazardous voltage
PANELREADY
by PROCESS SOLUTIONS

FIELD SERVICES

ON-SITE + REMOTE SERVICE

Process Solutions provides on-site and remote services, including software upgrades, troubleshooting, hardware replacement, and feature additions. Our large staff size gives us the flexibility to quickly respond to standard time frames and emergency service.

START-UP + COMMISSIONING

Process Solutions provides both system start-up and commissioning services. Our staff will travel globally to help you get your systems running. Process Solutions starts hundreds of systems per year, and our licensed electricians on staff can pull permits as needed.

PowerFlex
PowerFlex
PowerFlex

THE REVIEWS ARE IN

"One of our most successful partnerships is with a supplier called Process Solutions. The extensively skilled staff and large assembly space at Process Solutions allows them to handle even the largest systems that we have undertaken."

"I would like to thank Process Solutions for their professional workmanship and cooperation during the installation. There were challenges and your group embraced those issues with positive, well thought out solutions."

"The enclosures look fantastic! I know I've seen your guys' work before, but seeing it from a customer's point of view, that's some great work!"

"Thanks for the drawings. I just looked at the unit a few minutes ago, an absolutely beautiful job! I was blown away by the quality & workmanship."

"By the way, the panel is started up and it's working great. I really appreciate you and your project engineers' help on this job. You guys really got us out of a tough bind with this project. So, thanks!"

"We are all very pleased and impressed with the work that all of your folks have done for us... having you guys as a partner on the project would certainly make it successful. Truth be told, not sure where we would be in this project without you."

"I just wanted to say thank you to Process Solutions... you guys just saved me a ton of time. I really appreciate it."

"Thank you SOOO much for your hard work and attention to detail. It truly does mean a lot to me to still see a group that cares."

PROCESS SOLUTIONS

CONTROL SYSTEM DESIGN AND INTEGRATION

7112 265TH ST NW
STANWOOD, WA 98292

WWW.PROCESSSOLUTIONS.COM
SALES@PROCESSSOLUTIONS.COM
360-403-7037

CONNECT WITH US