



Integrated Solutions

Complete Turn-key, Application Specific Solutions

Finding a custom solution for unique or complex industrial or process application can be difficult. Yokogawa's integrated solutions team can design and implement custom control systems that meet your specifications and exceed expectations. Utilizing control, data acquisition and the complete line of Yokogawa products and platforms.

Engineering

Yokogawa Integrated Solutions is an engineering solutions group with proven results. We specialize in the evaluation and development of operations design improvements, design package development, and complete implementation and testing. Our services include:

- Project concept, design and management
- Dedicated engineer to personally support throughout the life of each project
- Full-fledged electrical, control system design
- Experts in PLC + HMI and PC-based control systems
- Proper hardware and component specifications
- All hardware programmed and fully operational
- Factory Acceptance Testing (FAT)
- On-site commissioning

Manufacturing

Yokogawa Integrated Solutions is a quality first, turnkey operation for both electrical and mechanical products. Each system we create is constructed specifically to your application, ensuring your systems run at the highest level of efficiency. We provide a wide range of benefits including:

- United States based 170,000 sq. ft. manufacturing facility
- Any size control panel fabrication
- Machine shop: milling, turning, welding, and painting
- CNC panel layout, drilling and tapping
- Laser-cut enclosure openings
- Custom engraving
- Surface-mount circuit board manufacturing
- UL 508 certified
- ISO/IEC 17025 testing and calibration certified

Documentation Services

Yokogawa Integrated Solutions provides a complete set of drawings and manuals for each solution including:

- Wiring diagrams
- Outline drawings (including total system and component-level drawings)
- All related product support documents

All documentation is stored in-house using Yokogawa's advanced document management system. This ensures that regardless of how much time has passed, our engineering staff has a full working knowledge of your integrated system.



Case Study

Scroll Compressor Manufacturer

Problem:

An OEM manufacturer that supplies HVAC scroll compressors requires all compressors have extensive cycle testing and documentation confirming test results. The existing lab system consisted of a 30+ year old PC-based main unit with remote I/O units distributed throughout the lab. The remote I/O units and main computer were failing and crashing regularly. This resulted in inaccurate test data and costly re-tests.

Solution:

Yokogawa's Integrated Solutions team evaluated the issues and created a custom distributed system that included multiple independent non-PC based test stations requiring no licenses or repetitive software upgrades. Each system runs up to 8 independent tests simultaneously and test data is locally recorded and stored and periodically uploaded to a server for report generation. The intuitive operator interface screens provide fast test setup and execution, allowing test systems to be remotely viewed and controlled.

Result:

The customer is very pleased with the reliability, repeatability, and efficiency during product testing. Fewer man hours are spent preventing and correcting test issues, substantially reducing cost. Thanks to the custom solution, the customer is able to isolate and correct possible future issues, resulting in the highest quality product.

Startup Microbrewery

Problem:

A microbrewery was in the process of opening its doors when it reached out to Yokogawa's integrated solutions team to create a consistent and reliable brewing process. The process had to be affordable and work with minimum manpower.

Solution:

Yokogawa's Integrated Solutions team worked with the Brew Master to create a custom control system that perfectly controls all temperature and timing requirements. The custom solution incorporated a process automation controller with a digital graphic display operator interface, allowing the Brew Master to monitor and alter temperatures and timing cycles as the brewing recipe required. A data acquisition system was also included to provide historical feedback for each brew to ensure the repeatability and quality of each recipe. The entire system was designed to accommodate future expansion of the brewery.

Result:

Having such precise control of the process has increased production volume twofold. The Brew Master also discovered that with the amount of data generated by the system they were able to try slight variations on brew recipes, creating unexpected new beer varieties. The new varieties expanded the company's offering and increased their bottom line. Since the installation of the Yokogawa integrated solution, the microbrewery has become very successful, advancing beyond a startup business in to a fully incorporated brewery.



"Combining the most reliable products with Yokogawa's trusted Integrated Solutions Team brings co-innovation and quality to each integration project. Yokogawa, the smart outsource solution."

Richard J Westerfield
Vice President , Manufacturing



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