



BARNUM
MECHANICAL INC.

Automated Control Systems

Barnum Mechanical Inc. (BMI) has designed and implemented hundreds of automated process systems – from greenfield process solutions, skid mounted controls, integration of new equipment to legacy systems, and systems requiring continuous processing with no downtime.

BMI's system automation engineers and process engineers work together from the beginning of concept development through the final stages of product commissioning. This collaboration delivers a cohesive, automated, and truly turnkey process design.



Automated Control Systems

Barnum Mechanical Inc.
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General Engineering Contractor
Class A License #612589





Automated Control Systems

What We Do:

Our systems automation engineering team provides standalone, skid mounted and distributed control systems including:

Design, Engineering & Project Management

- Automation and control system engineering
- Electrical system design engineering
- Functional industrial network architecture design
- Control hardware specification and procurement
- Project management

Systems, Programming & Supported Protocols

- Application-specific Supervisory Control and Data Acquisition (SCADA) systems
- Open system, scalable and cost-competitive equipment
- PLC / PAC ladder, structured text and function block programming
- ENET/IP, CNET, DNET, AS-I, ModBus, Profibus, and MQTT protocols supported
- Allen Bradley, Siemens, GE, Modicon PLCs, and many other brands
- Fully documented PLC programming and graphical Human to Machine Interface (HMI) application development

Installation, Commissioning & Validation

- Integration and installation of controls equipment and electrical systems
- Factory Acceptance Tests

- Site Acceptance Tests
- Instrumentation validation
- System commissioning
- Process optimization

Report Development

- Automatic and manually generated reports
- Production
- CIP
- Inventory
- Maintenance

Training and Support

- On-site customer training
- Post installation remote and on-site controls support

Process controls automation impacts your bottom line by:

- Reducing water consumption
- Reducing chemical consumption
- Maximizing process throughput and product quality
- Increasing batch accuracy
- Simplifying recipe changes and new recipe implementation
- Improving sanitation and decreasing risk from contamination
- Automating data collection
- Ensuring process motors do not exceed their necessary frequency requirements
- Reducing manpower
- Reducing human errors
- Monitoring overall equipment effectiveness
- Sending predictive maintenance alerts to maintenance managers
- Providing complete product genealogies
- Providing automated reporting



"We've worked with Barnum Mechanical many times over the past 5 years. They have provided us with a high-level of skill in controls and electrical engineering, instrumentation configuration and trouble-shooting. Barnum has proven that they can systematically analyze a control system and fine tune the equipment until optimal performance is achieved. We value our relationship with them and will continue to rely upon them in the future."

William Piper

VP, Production

Gekkeikan Sake USA

