



Turn-key Process Automation Solutions

Complete Integrated Solutions



Therma Corporation Industrial Controls Division

We provide customized controls and electrical systems to meet your specific needs.





Industrial Controls

Therma Corporation's Process Systems affords its clients the unique blend of fabricating specialty equipment modules while providing the specialized services of automation and electrical engineering necessary for the unit's operation. This combination of systems integration and mechanical engineering fabrication services ensures our customers the security of a sole source of supply. This is in contrast to a hybridized approach where clients are required to manage and coordinate multiple engineering service suppliers.

Process Engineering

Our Automation and Process engineers have a combined experience base spanning more than 100 years.

Process areas of expertise include:

- Biotechnology and pharmaceutical operations:
 - Fermentation, harvest filtration, TFF, chromatography
- Power generation and municipal facilities:
 - Cooling towers, boilers, RO and membrane technologies, lead/lag systems
- Semiconductor and solar fabrication systems:
 - PCW distribution systems
- Cleantech energy and new technology ventures:
 - Biodiesel, electrolysis, fuel cell applications
- Hazardous classifications including Class 1 Div 1 and 2 and their zone equivalents

Automation Engineering

Our Automation engineers are knowledgeable about a variety of cross-platform PLC, DCS, HMI, and SCADA control systems applications. We are committed to meeting our client's diverse requirements and specialized implementations.

We routinely develops applications for the following control systems and HMI platforms:

- Allen-Bradley Controllogix and SLC500
- Siemens S-7 Series
- Modicon/Modbus
- Automation DirectLogix Series
- Emerson DeltaV
- Allen-Bradley FactoryTalk View for PanelView and Networked applications
- Wonderware
- GE Proficy iFix and Cimplicity Series HMI and SCADA
- Third-party integration of packaged equipment (i.e. compressors, boilers, RO treatment units)
- Major industry standard communications protocols:
 - Foundation Fieldbus, Profibus, Ethernet/IP, Modbus/TCP or RTU, Devicenet, OPC



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Electrical/Control Panel Design and Fabrication

Therma Corporation's Process Systems engineers carefully consider the unique electrical, instrumentation, and controls requirements for specialized skid operation. All panels are designed and fabricated to meet UL508A certification requirements. Control panels are fabricated to ensure that the NEMA rating conforms to the local operational environment.

Key features and benefits include:

- Circuit breaker and load distribution sizing
- Instrumentation selection and control loop design
- Voltage segregation in accordance with NFPA70E Arc-Flash safety and mitigation
- Therma Corporation dissipation heat exchanger calculations
- Operator ergonomics for graphics terminal interaction
- Complete set of electrical schematics and panel layout drawings
- Point-to-point verification and continuity testing
- Fail safe and emergency stop interlock wiring