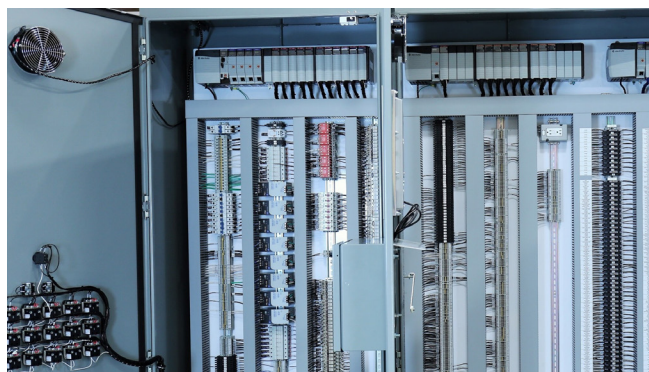


VaCom's Industrial Refrigeration Control Systems package standard industrial-duty controllers with variable speed motor controls and carefully researched and proven control strategies. The result is reliable and serviceable, with high performance and minimum operating cost. With EnergyDashboard® performance monitoring, owners can achieve continuous efficiency management.



Achieving Balance

Our control systems are carefully designed to optimize the performance of a refrigeration plant over a wide range of conditions through its life-cycle. We address the inefficiencies inherent in all refrigeration systems; designed for maximum load but operating 99% of the time at part-load and off-peak conditions. Our controls will provide automatic and balanced control of compressors, condensers, air units and other equipment to deliver low operating costs 8,760 hours per year.

In-depth refrigeration knowledge resulting from years of research, testing, analysis, and computer simulation result in control systems that deliver results!

Versatile

VaCom's controls integrate a wide variety of hardware, software, power components and control strategies. Our systems can be applied to numerous applications in either new construction or retrofit applications.

Equipment & Systems

- Screw Compressors
- Recip Compressors
- Condensers
- Air Units
- Vessels
- Exhaust Fans
- Variable Speed Drives
- Spiral Freezers
- HVAC
- Lighting
- Battery Chargers
- Underfloor Heating
- Refrigerant Monitors
- Power Monitoring

Communications Integration

- Bitzer
- Frick
- FES
- Mycom
- M&M
- Vilter
- Split-System
- Microcontrollers
- Leak Detection Systems
- Power Meters
- Variable Speed Drives
- Electronic Valve
- Controllers



Allen-Bradley Standard Platform

VaCom maintains several standard platforms which incorporate consistent and carefully documented control strategies, implemented in the language for each controller. Allen-Bradley PLCs are preferred by many food plants and industrial companies; programs for ControlLogix and CompactLogix controllers are maintained, with capability for even the largest facilities. For smaller plants Opto22 controller or IO are often used, and provides low cost, installation flexibility and advanced communications capability.

To compliment the PLC and PAC controller programs, standard HMI programming is maintained for Wonderware InTouch® and Archestra, Rockwell FactoryTalk® View and Opto22 HMI software.

Other Platform Options

In addition to standard platforms, refrigeration control projects have been implemented using numerous other controllers and HMI packages including:

- Ignition HMI
- Allen-Bradley Legacy PLCs
- GE Fanuc PLC
- GE iFIX HMI
- Siemens PLC
- Siemens WinCC HMI

For integration with distributed sensors and control devices as well as other control systems, VaCom has experience with BACnet, Modbus, LonTalk and custom serial communications.

Powerful HMI Interface

Information is power and VaCom's HMI interface functions provide dynamic insight to your system. Our HMI features include:

- Alarm display and history logging
- Messaging applications via the internet
- Real-time and historical trend charts
- Graphical visualization to provide rapid system assessments and troubleshooting

EnergyDashboard® for Lasting Energy Savings

VaCom's web-based energy and performance monitoring service for refrigeration systems will help ensure optimum performance is maintained over your system's life.

- Track system efficiency
- Benchmark plant performance
- Identify energy-based production metrics
- Display real-time results
- "Drill-down" and aggregation views
- And much more

What gets measured gets better!

