

Lift Station Industrial Control Panel

An electrical contractor was in a bind and contacted Northern Valley Machine the possibility of providing an Industrial Control Panel to in place of a Motor Control Cabinet. Because the MCC was omitted from the quote, it was not in the budget and it had not been ordered in time to meet the deadline.

The Industrial Control Panel needed:

- To be UL Listed
- 13 Motor Starters
- 2 Variable Frequency Drives
- A Phase Monitor
- A Run Indicator for each motor
- A Fault Indicator for each motor
- A run timer for each motor
- An Auto/Manual switch for each motor
- Delivery in three weeks

Northern Valley supplied the Industrial Control Panel in within three weeks at a fraction of the cost of the Motor Control Cabinet.

Factory Floor

An electrical contractor contacted Northern Valley Machine to provide a solution for a food processing factory. The original plan called for a MCC installed in a dry room far from the factory floor.

The Northern Valley Machine solution placed the control panels in stainless cabinets located on the wall within sight of the motors. This set of panels were interlocked using Ethernet between the panels. The E-Stop switches were the only hard wired interface between the panels. Northern Valley supplied the Industrial Control Panel at a fraction of the cost of the Motor Control Cabinet.



What is an Industrial Control Panel?

UL considers an industrial control panel (ICP) an assembly incorporating two or more pieces of industrial control equipment or related control circuit devices, provided with interconnecting wiring and terminals for connections in the field. To allow the installer to properly install the panel in accordance to the national electrical code and other codes, electrical ratings and instructions are to be clearly explained on the panel.

Installation can be completed in two ways: in an enclosure as "enclosed type" equipment, or arranged onto a mounting panel as "open type" equipment. For open type equipment, the assembly is installed in an enclosure or at the installation site.

Why a UL Listed ICP?

- Gives 3rd Party certification
- Many locations require UL Listing
- Panel meets NEC 409 Requirements
- Panel meets NFPA 70 and 79 Requirements
- Flexible replacement for a Motor Control Center

Why a ICP instead of a MCC?

- Cost
- Lead-time
- Built in Sequencing
- Flexible

Where would I use a ICP?

- Lift Stations
- Elevator
- Automated Equipment
- PLC Panels
- Relay Panels
- VFD Panels
- Process Control Panels
- MCC Panels
- Control Rooms



Industrial Control Panel



*Machining
and
Automation*

1124 15th Ave NE
East Grand Forks, MN 56721
Tel: (218) 773-4010
Fax: (218) 773-3425
www.northernvalleymachine.com

We use only top quality electrical components such as

- ABB
- Allen Bradley
- Balluff
- Baldor
- Banner
- Beckhoff
- BEI
- Brady
- Cutler Hammer
- Crouzet
- Entelec
- Ferraz Shawmut
- GE
- Grace
- Hoffmann
- Honeywell
- Horner
- Hubbell
- Ideal
- Idec
- Igus
- Jokab
- Littelfuse
- Meltric
- Moeller
- Murr
- Omega
- Omron
- Panduit
- Parker
- Puls Power
- Remke
- Rockwell
- Schmersal
- Sola
- Square D
- STI
- Telemecanique
- Turck
- Wago
- Watlow
- Wiegmann
- Yaskawa



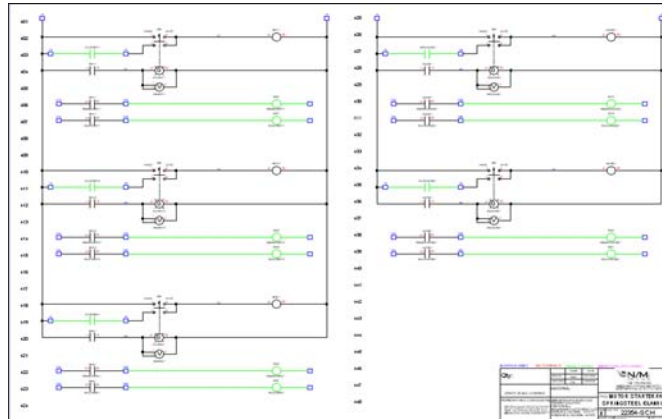
A Pentair Company



UL Listed



As a UL Listed Panel Shop, Northern Valley Machine uses only quality UL listed electrical components. All electrical panels include schematics, parts lists, software diagrams, field wiring diagrams, pneumatic schematics, and operating instructions where applicable.



Documentation Package

- Bill of Materials
- Electrical Schematics
- Panel Layout
- Software Ladder Diagrams
- Field Wiring Diagrams
- Pneumatic Schematic
- Operating Instructions



Programming Software Packages

- Allen Bradley/Rockwell
 - Factory Talk Studio
 - Panel Builder 32
 - RSLogix 500
 - RSLogix 5000
 - RSNetWorx
- Banner
 - Banner Safety Controller
- Crouzet
 - Millenium CLS
- GE
 - Versapro
 - Proficy Machine Edition
- Idec
 - WindLDR
 - WindLGC
 - WindMSG
- Omron/STI
 - OptoShield
- Square D
 - PowerSuite
- Telemecanique
 - TwidoSoft
 - TwidoSuite
 - Vijeo Designer



PLC's and Smart Relays

- Allen Bradley
 - ControlLogix
 - Compact Logix
 - Micrologix
 - SLC
- Crouzet
 - Millenium
- Idec
 - Microsmart
 - Smart Relay
- GE Fanuc
 - Nano
 - Micro
 - 70-30
- Square D
 - Twido
 - Zelio



by Schneider Electric