



Mining



Oil and Gas



Power and Utility



Rotating Equipment



Semiconductor



Water & Wastewater

# GAS PROCESSING PLANT

## WHY AUTOMATE?

The evolution of plant controls from pneumatic to analog and finally to digital has left many older plants antiquated in their controls. Plants built before the late 1970's were designed and built with pneumatic controls utilizing miles of tubing carrying control signals to control processes.

Controls obsolescence and increased desire for more precise control leaves these plants with the need to upgrade systems and, optionally, end devices.



## COMPLETE SOLUTIONS

Winn-Marion provides a turnkey solution that is installed and operated without the gas process being compromised or shut down. Utilizing an ABB Freelance solution allows the plant to place S900 I/O in hazardous areas to cut wiring costs normally associated with upgrading from pneumatic controls. New ABB 364 pressure transmitters and ABB TZID valve positioners are installed as part of the complete upgrade, further modernizing the facility. Additionally, a central database for the entire system allows simplified backup and easy implementation of any Asset Management system.

The system can be installed while the plant is on-line, remaining operational and running throughout the entire project. New ABB controls can be configured and installed in existing cabinets by replacing one device at a time and testing each device once on the new system for safe operation.

Many PLC solutions are not able to meet Class 1, Div 1 specifications in hazardous locations without a high cost associated. Winn-Marion/ABB solutions have high availability with proven experience in the harshest environments; the system can be structured redundantly at all levels.



## SYSTEM DESCRIPTION

Winn-Marion solutions are viable for a full range of processing assets, not just large facilities. We customize the application to fit the specific needs of the plant.

### Application Details

- Redundant AC800 process controllers
- 2 Hazardous location remote I/O panels
- 5 redundant Profibus I/O drops with mixed Standard and Intrinsically safe I/O
- Redundant Profibus Networks
- Redundant Power Supplies for all I/O
- 3 dual monitor operator control stations
- ABB 364 Hart transmitters
- ABB TZID-C Hart positioners
- ABB Hart Temp transmitters



Not only can we provide plant automation at the lowest possible installed cost, our solutions provide a(n):

### Advantages

- Expandable system for future plant additions
- Intuitive user interface that allow operators flexibility and customization of HMI
- BUS network that minimizes costly wire additions
- Quick response time with better accuracy using electronic rather than pneumatic controls
- Advanced monitoring capability for accurate data analysis and troubleshooting
- On-line diagnostic tool, all the way down to the transmitters and valve positioners
- Self documentation system intuitive enough for personnel to provide all future support
- Versatile communication network including voice output of instructions in the event of an alarm



**Winn-Marion**  
Companies

**Denver, CO – (303) 778-6767**

**Salt Lake City, UT – (801) 676-0155**

**Phoenix, AZ – (480) 968-9344**

**Billings, MT – (406) 259-9234**

**Pittsburgh, PA – (412) 319-7392**

**Roosevelt, UT – (435) 725-0082**

**Farmington, NM – (505) 326-4069**

**Evans, CO – (970) 339-9211**

**Gillette, WY – (307) 686-9196**

**Arnegard, ND – (701) 586-3184**

**Midland, TX – (432) 563-8151**



[winn-marion.com](http://winn-marion.com)





# Meet the Winn-Marion Companies

for more information visit [www.winn-marion.com](http://www.winn-marion.com)

## SERVICE



WM Automation Service, LLC

**Turnkey Automation** - Oil & Gas Wellheads • Tank Batteries Separators • Multi-Well Pad Plunger Lift Control

**Communications** - Spread Spectrum & Licensed Frequency • Radio Systems • Network Design • Radio Path Studies • Ethernet Radios • Satellite

**Troubleshooting** - Gas Measurement • SCADA • Radio Communications • Automation Systems

**Calibrations** - Gas Sampling • Flow Calibrations

**Industrial Control Electricians** - Certified ABB VFD Start-up • Field Electrical Installations • Heat Trace



**Analyzers** - Gas Chromatographs • Continuous Gas Analyzers

BTU Analyzers • pH, Silica, Conductivity • Trace Oxygen • H<sub>2</sub>S

**Heat Tracing Instruments** - Steam • Electric • Pre-Insulated Tubing Bundles

**Transmitters** - Differential Pressure • Gauge • Absolute Fully Welded Remote Seals • Multivariable • SIL 2 & SIL 3

**Flow Meters** - Coriolis • Magnetic Flow Meters • Precision DP Flow

**Controllers** - Single Loop Controllers • DCS • PLC • RTU

**Recorders** - Circular Chart • Videographic • Strip Chart

**Valves** - On/Off • Control Valves

**Governors** - Mechanical & Electric • Catalysts & Air Fuel Ratio

## SALES



Winn-Marion Barber, LLC



## CONTROLS



Winn-Marion, Inc.

**Plant Control Systems** - Human Machine Interface (HMI) Design & Integration • Protection System Design • Remote I/O • PLC • DCS

**Field Service**

**Training**

**Engine Control** - Emissions Control • Speed Control • Protection Systems • Mechanical Governor Upgrades

**Turbine Control** - Speed Control • Load Control • Protection Systems Steam • Valve Actuation • Mechanical Governor Upgrades

**Generator Control** - Start/Stop Sequencing • Load Control • Remote Monitoring • Protection Systems

**Turnkey Design, Installation and Commissioning of All**

