



Mining



Oil and Gas



Power and Utility



Rotating Equipment



Semiconductor



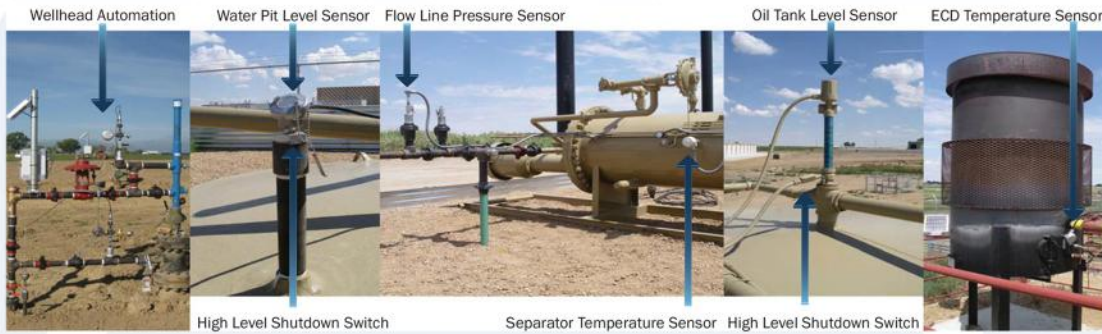
Water & Wastewater

NATURAL GAS WELLHEAD AUTOMATION

WELL DELIQUIFICATION

Many of the known natural gas reserves in the Rocky Mountains have fallen into the mature category. As production at these sites falls, liquid collects in the well bore, which impedes gas flow and decreases production. A plunger lift is commonly used for the deliquification of a well. This allows for Winn-Marion customers to see production long past the point where they can produce fluids up the well bore on their own.

Winn-Marion provides turnkey supply and installation of ABB Totalflow's proven X-Series technology with adaptive algorithms for optimal cycling of the plunger. Pumpers or operators can simply make manual adjustments via the optional keypad or the unit can be configured for auto-tuning to optimize the well's performance. Associated instruments, as shown, are also installed as part of this turnkey automation.



SCOPE OF SERVICE

With the use of plunger-lift technology and Winn-Marion's automation control systems, pumpers and operators can safely and effectively monitor production while reducing travel time to and from the wellhead site. Our systems have the flexibility to handle simple to complex custom applications. The plunger can be automated in a variety of different ways including optimization on all open and close conditions with min and max limits on open and close conditions. The system runs on Windows CE platform and uses flash memory, making for easy configuration changes, bug fixes and feature updates.

The flexibility of our systems allow customers to add and modify locations without adding additional RTUs. Up to 24 wells can be automated with a single RTU. The highly configurable system provides the flexibility to handle any job while still providing "canned" factory supported applications for ease of use. Tank levels for custody-measurement can be determined via two methods: a LevelMaster or guided wave radar. Floats can be installed to measure only the top surface level (single float) or both surface and interface levels (dual floats). In addition to measuring the liquid level, the LevelMaster measures the liquid temperature. Spills and emergencies are prevented with the alarm and shut down settings. Shut downs are highly configurable but are commonly done on high levels, high/low pressures, and loss of communication.

Winn-Marion provides wireless monitors to collect and transmit a variety of data. Standard installations include plunger arrival, tubing, casing, and surface casing pressure sensors. Additional customization and sensor locations can be installed.

**MEASUREMENT & SENSOR OPTIONS: Separator temperature • ECD temperature & run status
Line pressure - Flow & Sales • VRU run status • Oil/Water dump metering • Buffer tank level**



**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



Meet the Winn-Marion Companies

for more information visit 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 • H₂S

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



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

CONTROLS



Winn-Marion, Inc.

