

Hawkeye-100 Chemical Injection Remote Monitor & Control

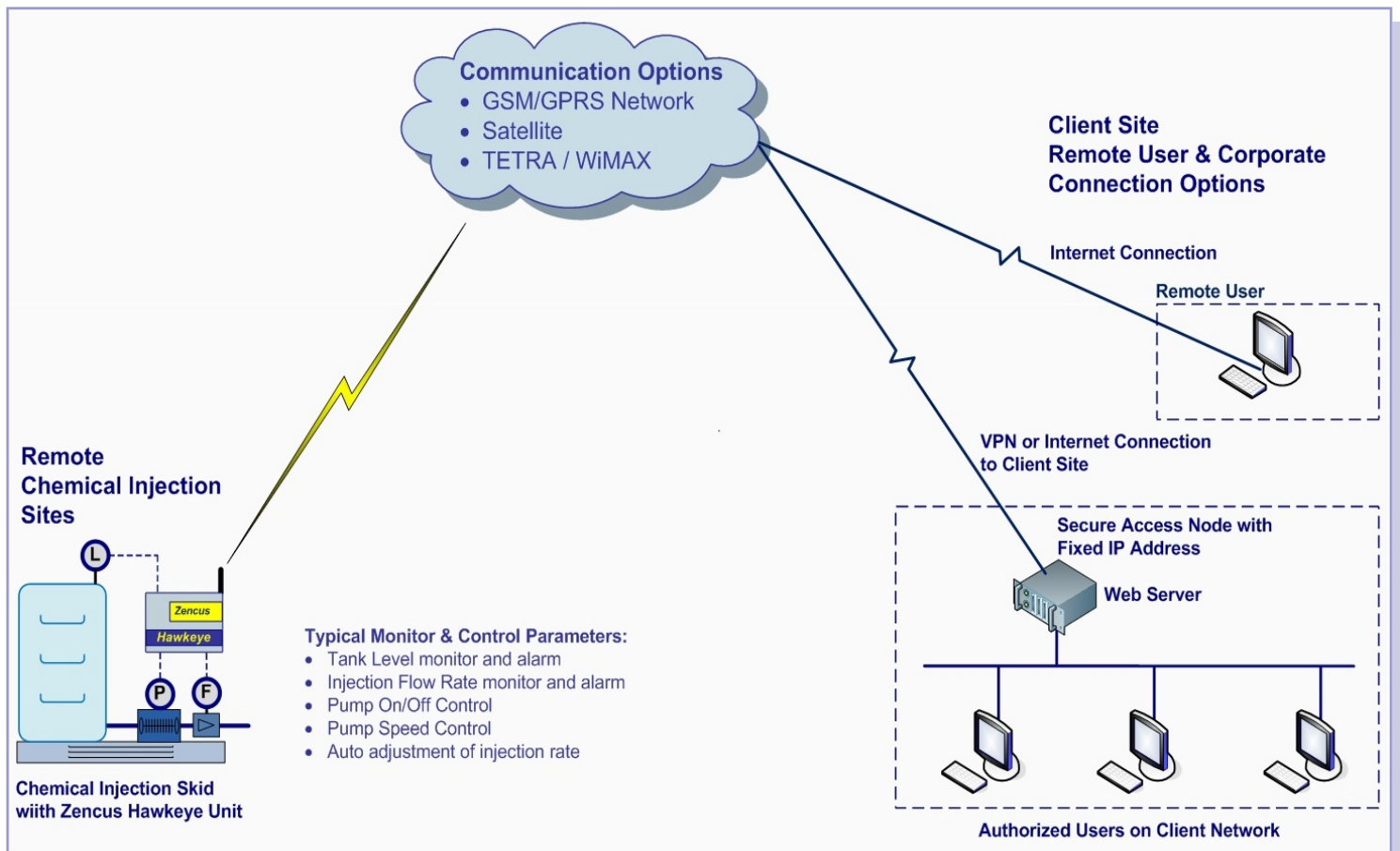
Chemical Injection Remote Monitor & Control

"Delivers Real-time Data & Control the Desktop - Economically"

System Overview

The Hawkeye-100 Chemical Injection Remote Monitor and Control system comprises:

- Compact monitoring, control and data transmission unit with data logger.
- Wide choice of data transmission options e.g. GSM/GPRS network, ISM license free radio, satellite or client TETRA and WiMAX networks.
- Can be hard-wired to existing RTU or DCS, where available.
- Multi-channel monitoring and reporting of all parameters.
- Remote control of pump On/Off and pump speed / injection flow rate.
- Can configure to auto-adjust injection rate via link to well flow rate measurement.
- Data delivery via Hawkeye Remote User web interface or by Hawkeye corporate web-server.
- Comprehensive, plotting, trending and reporting with Hawkeye software.
- Alarms & diagnostics delivered by e-mail and/or SMS text message.
- Optional geographic display of installation locations on Google Earth.



Benefits

- Eliminates routine field visits and associated manpower and costs.
- More efficient management of chemical usage.
- Prompt alarms and diagnostics allow quick response to upsets.
- Satellite option can monitor the most remote locations.
- Sophisticated data analysis and reporting software improves workflows.

Zencus

Hawkeye
Remote Monitor

Hawkeye-100 Chemical Injection Remote Monitor and Control

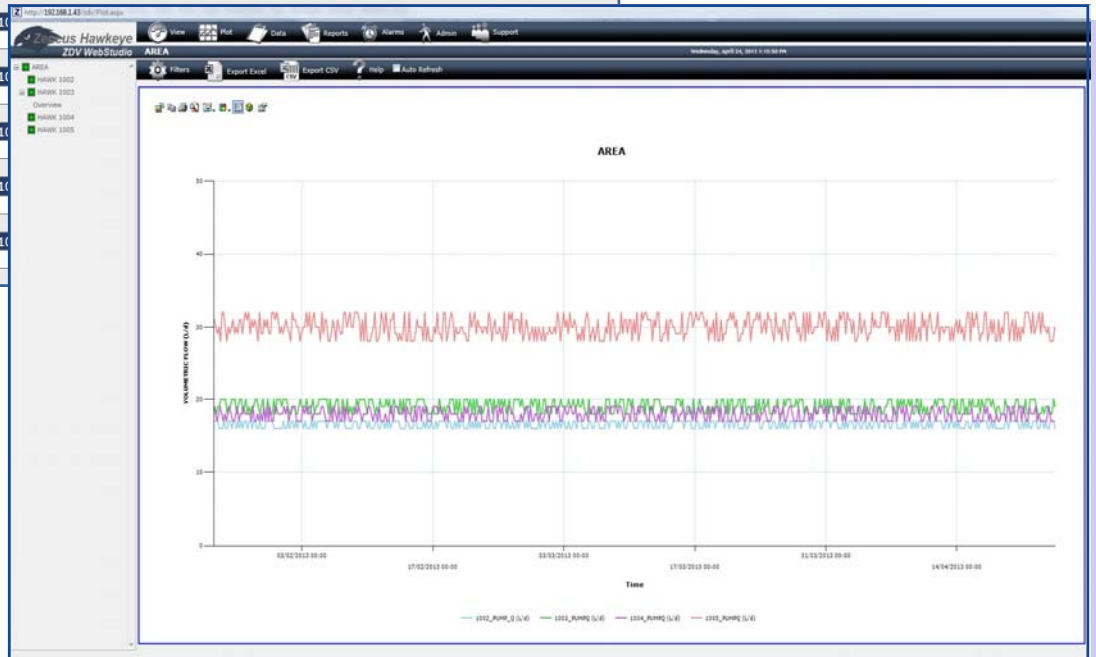


Typical Monitor and Control Parameters:

- Tank level monitor and alarm.
- Injection flow rate monitor and alarm.
- Pump On/Off control.
- Pump speed monitor and control.

Data Delivery & User Interface

- Web-based software.
- Intuitive and easy to use.
- Real time Plotting, Graphing & Trending.
- Alarms via SMS and/or e-mail.
- Data export to Excel.



Specifications

Processor	Low-power mixed signal microcontroller with GPS auto synchronising RTC.
Data Logger	Up to 4 GB non-volatile SD Card memory. (Typically > 1year of data logging).
Auto-restart	Hardware and software Watchdog with auto-restart.
Communication Options	GSM/GPRS mobile phone network Satellite terminals for VSAT/BGAN/LEO/Thuraya. ISM band radio links. Client TETRA and WiMAX networks.
Data Input / Output Options	4-channel Analog Inputs. Configurable; 4-20 mA, 0-5/10 V, thermocouple. 4-channel Digital Inputs (opto-isolated) with optional pulse accumulator channel. 1-channel Analog output. Configurable; 4-20 mA, 0-5 V, 0-10 V, etc. Optional 4-channel I/O expansion modules (configurable). 4-channel relay outputs. Output Communication: Serial RS232/RS485 or Ethernet configured as Modbus Master or Slave.
Self-Diagnostics	All I/O continuously monitored with remote report and alarm.
Power Supply	220/110 VAC, 12-24 VDC with integral back-up battery or from optional integrated solar power pack.
Enclosure	POLYPRO polyester or to client specification. Protection: NEMA 4X / IP66 Optional Zone 2 certified version for use in Hazardous areas.
Environmental	-20 to 65 C ambient.
Related Applications	Corrosion Probe Monitor. Cathodic Protection Transformer Rectifier Monitor.