HALO

Standardised Solutions 2025

Halo Systems

New Zealand's trusted monitoring, control and automation partner.

Since 2001, Halo Systems has been dedicated to empowering customers, enabling enhanced efficiency, productivity, and profitability through innovative technology.

Halo's state-of-the-art technology enables our users to monitor and control every aspect of their business, providing fully automated, command and control systems that can be accessed and managed from anywhere in the world.

2001
Established

10,000+
Halo Users

50,000+
Connected devices throughout Australasia

Monitor and control your critical on-farm and orchard infrastructure from anywhere.

Total oversight

Get holistic understanding of your assets, from end to end—even integrate data from third-party sources. Have peace of mind knowing that your assets are being monitored 24/7.

Reliable

State-of-the-art hardware and software monitoring more than 7,500 systems throughout New Zealand, Australia, and the South Pacific. Rely on Halo to improve the efficiency and security of your operations.

Flexible

Halo's systems are built for scale and modularity, meaning that they can be easily adapted to your needs. This makes Halo a cost-effective solution for businesses of all sizes.
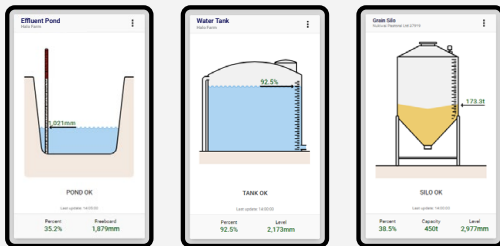
Proudly New Zealand Designed, Built & Supported

Halo's proprietary technology is developed entirely in-house, allowing for seamless end-to-end system monitoring and control—an unmatched advantage in the market. Our dedicated Waikato-based support team provides expert assistance to customers nation wide, ensuring reliable, responsive service.

How Halo Works

From the ground to the cloud.
One system for your whole farm or orchard.

Halo uses state of the art hardware and software to run systems tailored to your specific needs. We set up a data gateway in the most practical location and connect the range of sensors needed to meet your requirements. Solar powered or mains powered with both cellular and internet connectivity options, Halo can work anywhere, any time.

1. Gateway

First we install a base unit on your site which provides a cellular based link to Halo's cloud based dashboard.
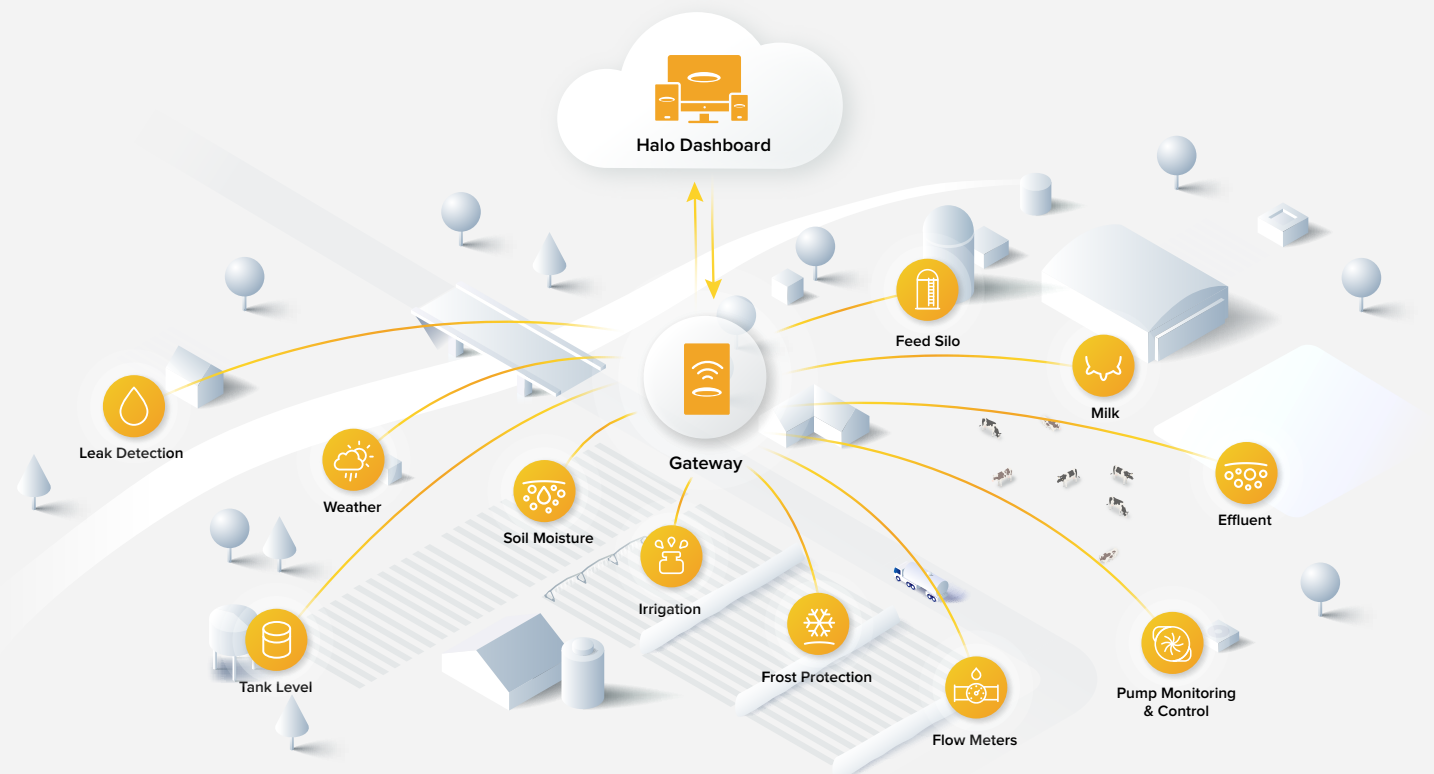
2. Wireless Nodes

We can install wireless units to be used in areas where hardwiring cannot be achieved to create a mesh network.

3. Halo Cloud

The Halo Cloud is a secure and powerful historian and data processor, allowing the generation of alerts and reliable data storage.

4. Halo Dashboard

Upon deployment, our network establishes a monitoring and control system, allowing users to remotely monitor and manage devices, equipment, and processes through our online dashboard.

The Halo Advantage

Trusted by over 10,000 users—here's why:

Reliable, Local Support

Halo's dedicated support team is always ready to assist, troubleshoot, and remotely diagnose any issues, ensuring uninterrupted performance.

Industry-Leading Warranty

Every Halo hardware product comes with a 1-year warranty, guaranteeing quality and reliability.

Transparent Data Fees

Halo's pricing structure is straightforward:

- An initial variable fee covers hardware and installation.
- An annual data fee per connection ensures ongoing service, including:
  - Access to customer support and services
  - GSM data connectivity
  - Secure, cloud-based storage
  - 50 text message alerts per month
  - Managed web access for multiple users
  - Full access to the Halo Dashboard
  - Continuous system monitoring and maintenance

'Blue Tick' Approved Compliance

As an IrrigationNZ-approved 'Blue Tick' provider, Halo ensures full regulatory compliance, giving you confidence in your water management solutions.

Premium Installation & Service Network

Halo works with a nationwide network of trusted dealers and service agents, alongside our dedicated in-house technicians, to deliver seamless installation and support.

Complete Historical Records

Access your complete historical data records—anytime, anywhere—without restrictions.

Automated Regulatory Reporting

Streamline compliance with automatic daily usage reports sent directly to your local council, eliminating the hassle of manual reporting.

Comprehensive Product Offering

Halo's flexible platform evolves with your needs, allowing customers to integrate all of their on-farm monitoring into one complete solution. Halo streamlines all monitoring data and alerts into a single, convenient platform—giving you full visibility in one place.

X Series

The simplified remote monitoring solution.

The X Series is a cost-effective and versatile solution designed to simplify remote monitoring. With two digital inputs, one analog input and SDI-12, it simplifies processes and minimises redundancy across various basic monitoring applications, such as flow metering, tank or silo level measurement, and soil moisture monitoring.

Remote monitoring, simplified

Designed to streamline operations and minimise redundancy, the X Series offers a cost-effective solution with two digital inputs, one analog input, and SDI-12 compatibility. Ideal for monitoring flow meters, tank and silo levels, and soil moisture.

Effortless Compliance Reporting

Automatically generate and send daily water usage reports to your local council, keeping you fully compliant with regulations without the need for manual submissions.

Flexible Power Options

Choose between solar or mains power for versatile deployment in any environment, ensuring reliable performance wherever your system is installed.

Complete System Visibility

Connect your X Series to the Halo Dashboard for real-time, remote monitoring of your system, giving you full insight from anywhere.

Ordering your X Series

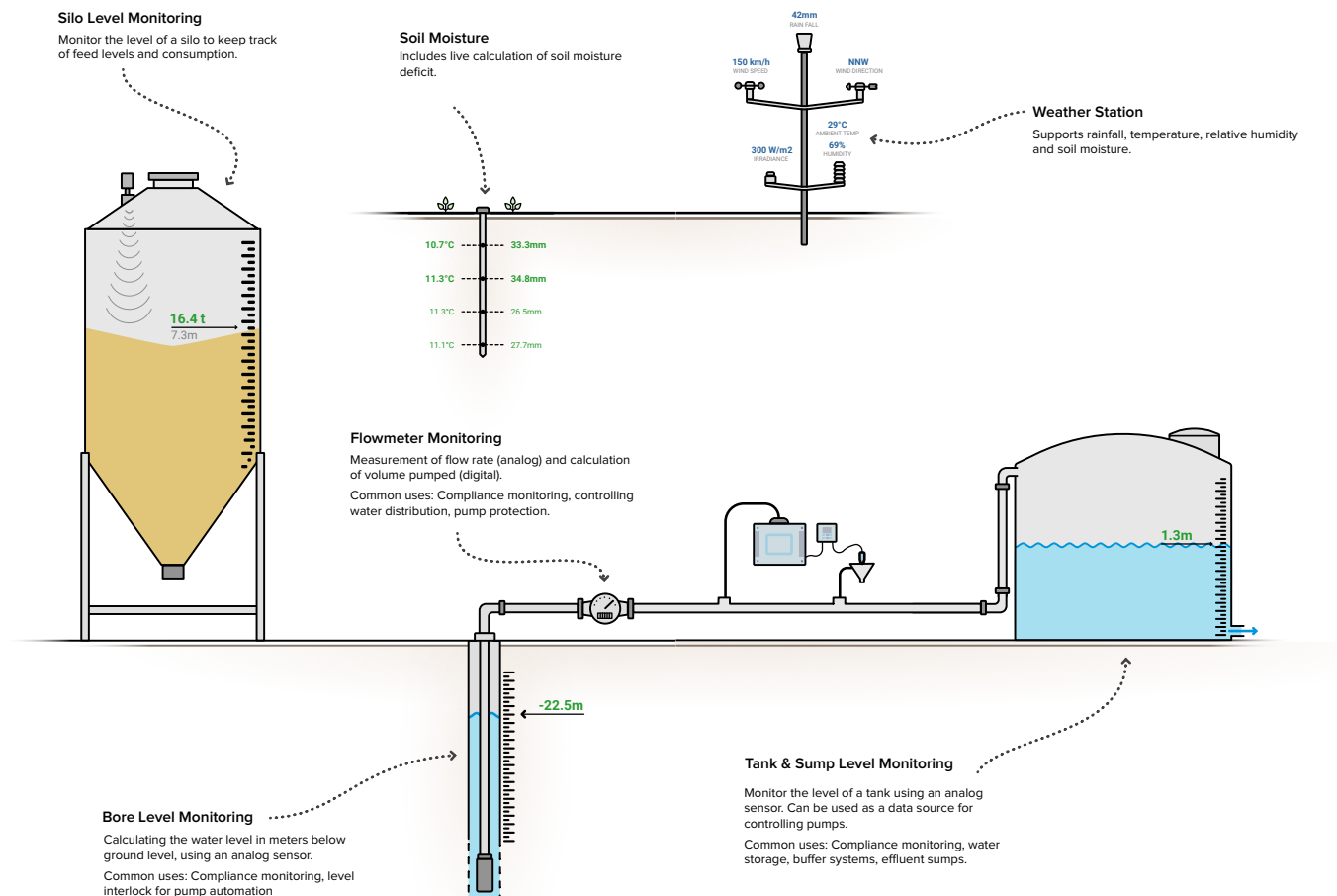**Pay only for what you use by selecting from the monitoring options below.**

Subscription: The Halo X annual subscription fee is based on $300 for the first input and $120 for each additional selection.

Initial hardware cost: 5W Solar Powered: $1,224 / 10W Solar Powered: $1,281 / Mains powered: $1,151

X Series Configuration: The table below outlines the available monitoring options. Please note that digital inputs can be configured with both analog and SDI-12 options. However, analog and SDI-12 configurations are incompatible.

Select x2 Digital Inputs

Flowmeter pulse count

Rain bucket pulse count

Driveway beam sensor

Pump run

Pump fault

Tank high

Tank low

Select x1 Analog Input

Level (tank, silo, river, pond, etc.)

Temperature (e.g. PT-100 with 4-20 mA transmitter)

Relative humidity

Select x1 SDI-12

Soil moisture

Temperature and relative humidity

Additional third-party hardware is required – provided pricing applies to Halo hardware only. Pricing also excludes installation, labour and materials. Prices are in NZD excluding GST.

Silo Level Monitoring
Monitor the level of a silo to keep track of feed levels and consumption.

Soil Moisture
Includes live calculation of soil moisture deficit.

Weather Station
Supports rainfall, temperature, relative humidity and soil moisture.

Flowmeter Monitoring
Measurement of flow rate (analog) and calculation of volume pumped (digital).
Common uses: Compliance monitoring, controlling water distribution, pump protection.

Bore Level Monitoring
Calculating the water level in meters below ground level, using an analog sensor.
Common uses: Compliance monitoring, level interlock for pump automation

Tank & Sump Level Monitoring
Monitor the level of a tank using an analog sensor. Can be used as a data source for controlling pumps.
Common uses: Compliance monitoring, water storage, buffer systems, effluent sumps.

Effluent Series

Peace of mind from pump to paddock.

With three product tiers to choose from—Effluent Essential, Standard, and Advanced—Halo makes it easy to select the solution that fits your farm's specific effluent requirements. Whether you require basic pump control or a fully integrated multi-line system, we have the right option for you.

Remote Pump Control & Alerts

Control your pump from anywhere via your smartphone with Halo's Effluent Series. Start or stop the pump remotely, and receive instant alerts if it stops unexpectedly, ensuring you're always in control and maintaining peace of mind.

Flexible & Scalable System

With customisable configuration options, the Halo Effluent Series grows with your needs. Halo offers basic pump control to more advanced features like multi-line irrigation and nitrogen mapping, ensuring your system stays adaptable for future requirements.

Advanced Multi-Line Irrigation

Manage up to six independent irrigation lines with Halo's intelligent controller. Each line is customisable to match your farm's specific needs, ensuring efficient and precise effluent distribution.

Environmental Safeguards & Connectivity

Halo's fail-safe 'Irrigator Node' prevents overapplication by shutting down the pump if the irrigator halts, while geo-fencing ensures effluent stays clear of waterways. Solar-powered repeaters maintain constant system communication across your farm.

Ordering your Effluent Series

Halo's Effluent Series consists of three product tiers: Essential, Standard, and Advanced. Each product starts with a base model that includes Pump Control functionality. Users can then select their effluent system by selecting from the functionality options listed below. This table helps you understand the available features and the upgrade pathways between different product tiers, ensuring you choose the right configuration to meet both your current and future needs.

*Additional third-party hardware is required – provided pricing applies to Halo hardware only. Pricing also excludes installation, labour and materials. Prices are in NZD excluding GST.

Effluent Base System (Required)	Essential $2,390	Standard $3,490	Advanced $4,690	Annual Sub $1,200
Base System - Includes Pump Control (Remote Start / Stop) Start or stop pump from anywhere using any web-enabled device.	✓	✓	✓	

Functionality (Upgrade pathways available)

	Essential	Standard	Advanced	
Discharge Volume* Track how much effluent is going out directly from the pump. Requires flow meter.	✓	✓	✓	
Line Pressure* Tracks the pressure at the pump, measured in kPa or PSI, to detect potential issues and ensure reliable pump performance. Requires pressure sensor.	–	✓	✓	
Sump / Pond Level* Monitor storage levels (height) of liquid in a sump or pond to prevent overflow and maintain proper system function. Requires level transducer.	–	✓	✓	
Automatic Stirrer Configurable pre-stir and automatic periodic stir.	–	✓	✓	
Discharge Flow Rate* The rate at which effluent is discharged, measured in litres per second or hour. Requires flow meter.	–	✓	✓	
Multi-line Irrigation (additional travelling irrigator / pods) Automated valve control supporting up to 6 separate lines.	–	–	✓	

Optional Upgrades (available across all product tiers)	Price	Annual Sub
Irrigator Node (Movement Failsafe & GPS Proof of Placement) Automatic shutdown if your irrigator unexpectedly stops moving preventing ponding, pooling, and potential runoff into drains or water sources. Includes GPS for proof of placement for moving or stationary machines (i.e. travelling irrigators / rainguns, centre pivots, stationary cannons or pods). The base system annual subscription covers up to 2 machines.	$2,180	–
Halo Radio Repeater 2.4 GHz radio repeater with solar panel and battery. Repeaters will be needed to ensure adequate radio coverage of the area to be irrigated based on land topography.	$825	–
Nitrogen Mapping Feature Record how much nitrogen has been applied on a per paddock basis. This is a software-only product where no additional hardware is required.	–	$1,200

Pump Essential

Precision pumping made simple.

Simplify pump management with powerful monitoring, automation, and compliance control, designed to protect your system and keep operations running smoothly.

Flexible Single & Dual Pump Control

Halo Pump Essential offers full control over single or dual pump setups. Easily start or stop your pumps on-demand via the Halo Dashboard, ensuring smooth, on-demand operation whenever needed.

Automatic Pump Activation

The system intelligently triggers pumps based on water levels, flow, volume, pressure, or scheduled times, providing fully automated performance that adapts seamlessly to your farm's specific needs.
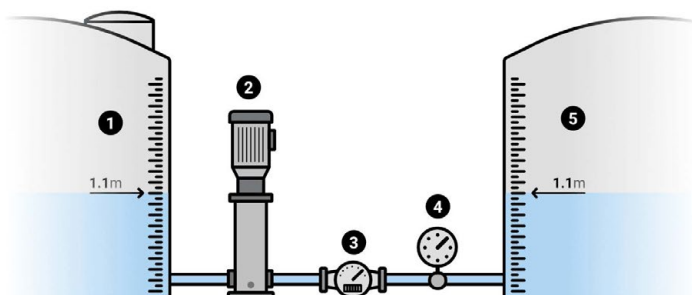
Communication, Connectivity & Control

With support for both local (radio) and remote (cellular) networks, Halo Pump Essential ensures continuous connectivity. Repeater bundles extend communication range, keeping your pump system fully connected across large distances.

Compliance & Equipment Protection

Stay compliant with automatic flow rate and volume monitoring, which shuts down pumps if limits are exceeded. Advanced safeguards protect your equipment by monitoring pressure, preventing dry runs, and stopping overflows, ensuring safe and efficient operation at all times.

1: Water Source (Optional) can be used as a run permissive for the pump. Local or remote.

2: Pump Control (Remote Start / Stop) supports direct or local control via an enable signal.

3: Flowmeter (Optional) supports a 4-20mA flow rate, and pulse count based volume monitoring.

4: Analog Pressure (Optional) 4-20mA pressure monitoring.

5: Destination (Optional) The destination can be a tank, controlling the pumps with a fill permissive. Local or remote.

Ordering your Pump Essential

The Halo Pump Essential provides a robust foundation for pump monitoring and control, offering single or dual pump options with additional functionality available within the base system.

*Additional third-party hardware is required – provided pricing applies to Halo hardware only. Pricing also exludes installation, labour and materials. Prices are in NZD excluding GST.

Base System (Required)	Price	Annual Sub
Halo Pump Essential – Single Pump: Base system providing pump control and monitoring. Clean contact required.	$2,190	$900
Halo Pump Essential – Dual Pump: Base system providing pump control and monitoring of up to two individually controlled pumps. Clean contact required.	$2,790	$1,200

Functionality

Flow Volume*
Track how much water is going out directly from the pump. Requires flow meter.

Line Pressure*
Tracks the pressure at the pump, measured in kPa or PSI, to detect potential issues and ensure reliable pump performance. Requires pressure sensor.

Water Storage Level*
Up to two (tank, bores, reservoirs, pond, dam, etc) levels per pump, 4-20mA input per vessel, or use a water storage from a remote location. Requires level transducer.

Pump / Motor Run Time
Track the duration that the pump or motor is in operation, helping to prevent overuse or unexpected downtime.

Pump Fault Feedback
Detects and alerts users when there is a malfunction or issue with the pump enabling quick intervention to prevent equipment failure or prolonged downtime.

Remote Network Repeater Bundles (Optional Add-On)

Halo X Series 10W Solar Bundle* Utilised for remote water storage locations such as tanks, bores, reservoirs and ponds. This system automatically activates the pump with a fill permissive when water is needed. Requires level transducer.	$1,281	$300
Cellular Connection Cloud based connection for Remote Process Control (RPC), enabling seamless communication between remote water storage levels and pump activation.	–	$300

Milk Vat Monitoring

Capture the information that matters.

Halo Milk Vat Monitoring puts you in control of the key aspects of your dairy shed, ensuring optimal performance and peace of mind. With real-time insights, Halo helps you maintain milk quality, improve efficiency, and simplify your operations.

Monitor and manage key factors such as:

- Vat temperature
- Vat volume
- Stirrer status
- Pre-cooling temperatures
- Wash temperatures

Consistent Milk Quality

Ensures your milk stays at the right temperature, helping you maintain quality and compliance standards.

Comprehensive Milk Monitoring

Monitor all aspects of your dairy shed including vat temperatures, volume, stirrer status, pre-cooling temperatures, and more.

Accessible Anywhere

Access all of your milk data on the Halo Dashboard via any web-enabled device.

Dedicated Support Team

Backed by a knowledgeable and responsive support team, ready to assist you with setup, troubleshooting, and any questions, ensuring the system runs smoothly.

Ordering your Milk Vat Monitoring

Base System (Select one)	Price	Annual Sub
MVM Single-Vat	$2,640	$900
MVM Double-Vat	$3,570	$900

Functionality

Milking Start/Stop Time

Halo tracks the start and stop times of each milking session, giving you clear insights to monitor performance and manage your team effectively.

Vat Temperature

Halo continuously monitors your vat temperature and sends instant alerts via text or email if your milk is too hot or too cold, ensuring quality is maintained right up to tanker collection.

Vat Volume

Track the real-time volume of milk in your vat to stay informed and optimise your operations.

Milk Inlet Temperature

Ensure the milk entering the vat is at the right temperature.

Wash Temperature

Ensure the plant is washed within the required temperature range.

Power Monitoring

The Halo System operates on mains power with a reliable battery backup. In the event of a power outage, you'll receive alerts while the system continues to monitor your milk temperatures, ensuring uninterrupted oversight.

Complete Historical Records

Access and review comprehensive historical records of your milk data anytime, ensuring you have the insights you need at your fingertips.

Optional Upgrade	Price	Annual Sub
Local Add-On Node An expansion of the milk monitoring system—Includes 4x digital inputs and 2x analog inputs.	$1,190	$300

Easily integrate additional monitoring options like flowmeters or level sensors (e.g., tank or silo) in and around the dairy shed. Hardwired directly into the MVM unit, this add-on offers a simple and scalable solution to expand functionality and enhance your system's capabilities.

Contact your regional manager

Call us to discuss your options and help us choose the right solution for your needs.

Sean McChlery
Agri Sales Lead

+64 27 700 3967

seanm@halosystems.co.nz

Alice Hamer
Business Development Manager — South Island

+64 27 309 6560

alice@halosystems.co.nz

Contact Halo
0800 HALO SYS (0800 425 679)

07 847 6380

info@halosystems.co.nz

Our opening hours
Monday to Friday 08:00 to 17:00
excluding public holidays.

Our head office is located at
42B Tawn Place,
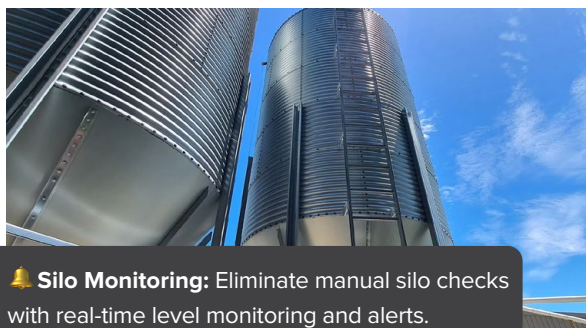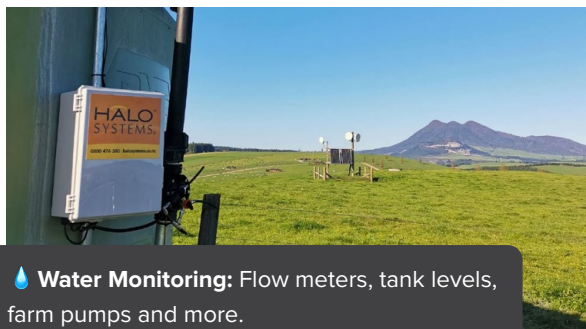Pukete,
Hamilton 3200
New Zealand

halosystems.co.nz

HALO

EXPAND YOUR MONITORING

Your Full Farm Picture. Milk, Water, Effluent and more!

One platform.
More convenience.
Total peace of mind.

Halo takes you far beyond the vats in the shed — giving you complete visibility and control over your entire farm. We streamline all of your data and alerts into one powerful platform. Smarter decisions, more efficiency, and total peace of mind.

💧 **Water Monitoring:** Flow meters, tank levels, farm pumps and more.

💩 **Effluent Monitoring and Control:** Pump control, movement failsafe, geo-fencing and GPS proof of placement.

🔔 **Silo Monitoring:** Eliminate manual silo checks with real-time level monitoring and alerts.

🌦️ **Environmental Monitoring:** Weather, soil moisture, freshwater data and more.

Expand your monitoring with New Zealand's most comprehensive on-farm solution.

Talk to our team to find the right add-on for your farm.

HALO