

SILO MONITORING SYSTEMS

> SILO MONITORING SYSTEM

Utilising innovative design methods and products available from our other divisions as part of Mechanical Equipment Group. Automation & Control have developed a comprehensive Silo Monitoring System for Storage Silos. Introducing the *Sence Silo Monitoring System*.

A complete monitoring service of storage silo levels with the benefit of remote connection using touchscreen technology. With full security and alarming, this system provides a guaranteed silo protection system with system feedback and control.



Our goal is to provide a silo monitoring system to prevent accidents before they happen.



SENCE
AUTOMATION SOLUTIONS

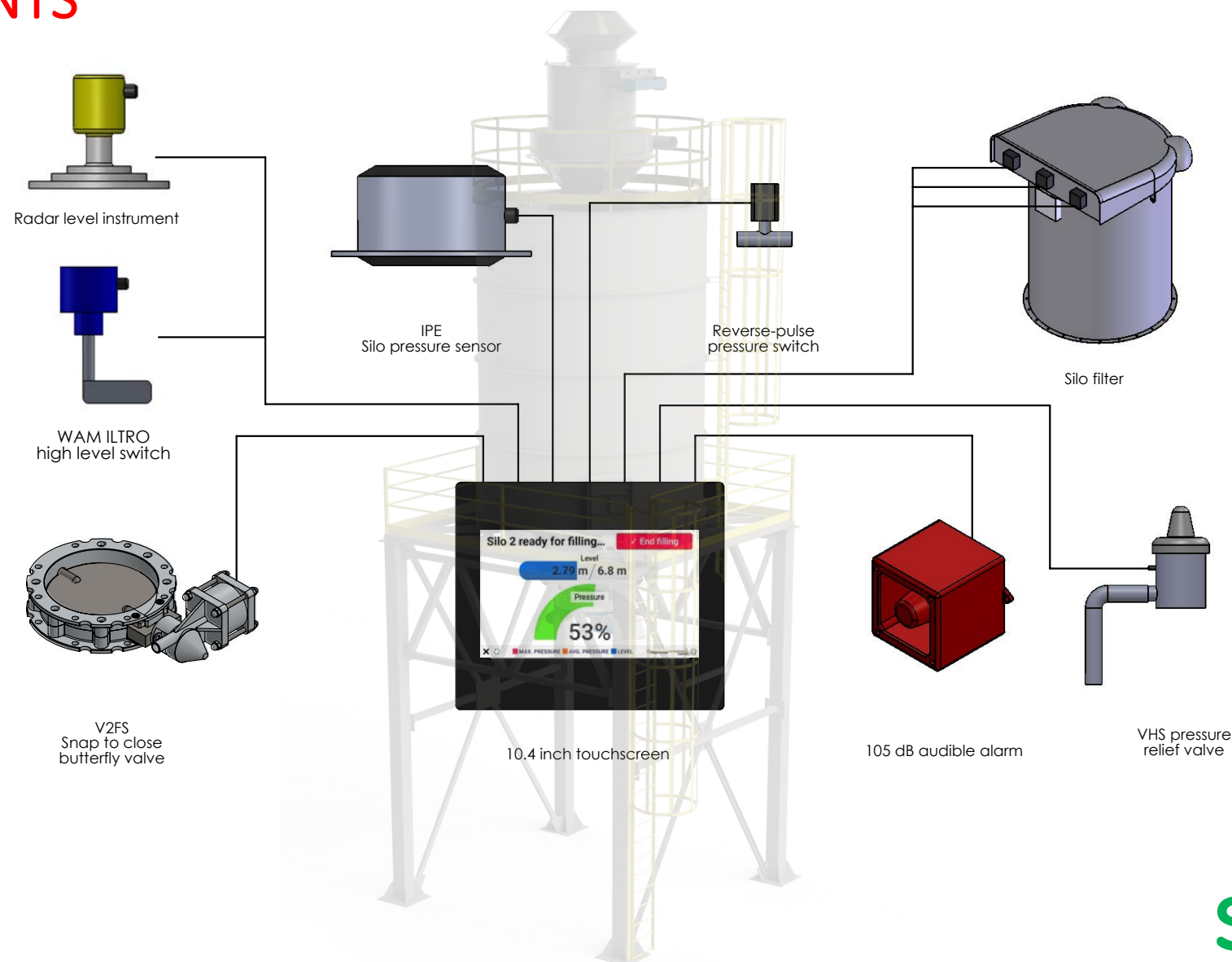
> SYSTEM COMPONENTS

Our silo monitoring system is customisable to suit site conditions and requirements.

Our screens can monitor 1- 50 silos on any given plant.

Offering the **Radar Level Instrumentation** to continuously measure level in silo or alternatively our economy version by detecting a high level with a **Rotating Paddle** or **Tuning Fork Level Switch**.

The supplied equipment is included but is not limited to.



> FEATURES



> Cabinet – IP66 Touch Screen HMI Panel

- With audible and visual alarm
- Log on function for driver identification
- Selection of silo to fill
- Full feed back display for operator
- Visual filling display
- Visual pressure display
- Visual warning of over pressure or filling
- Audible alarms with strobe light



> VHS Pressure Relief Valve

- Over pressure relief valve. Operates at 800mm of water pressure.
- Ducted outlet for indication of over pressure via exhaust pipe.



> Dust Collector Incl. Nano Fibre Technology

- 7-14 x filter cartridges.
- Low height profile for ease of maintenance.
- Inbuilt solenoid & air reservoir.
- Nano fibre filter elements for maximum air flow increased up to 35%.
- Stainless Steel body and fitting.
- Inbuilt control.

> FEATURES



> **ILTRO Mechanical Level Probe** (Option)

- Additional option – back up high level.
- Rotary paddle type.
- Multi-voltage.
- Simple switching NO / NC.



> **Silo Radar Measurement**

- Detects actual level inside silo.
- Proves calculation for actual volume.
- Different probe options available.

> FEATURES



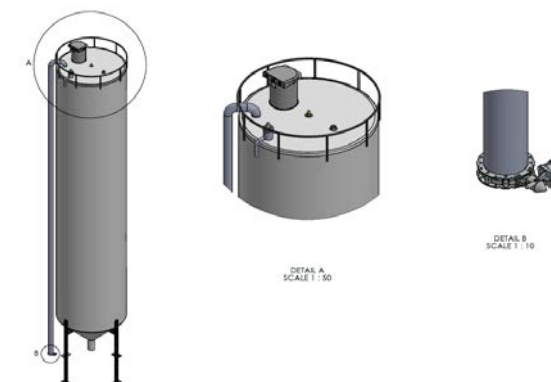
> IPE Pressure Sensor

- Silo roof mounted.
- Detects pressure inside of silo or hopper.
- 4-20ma signal output.



> Snap to Close Butterfly Valve

- Connects to input 4" camlock V2FS100 with CPX actuator & solenoid.
- Identical top and bottom flange.



> BENEFITS

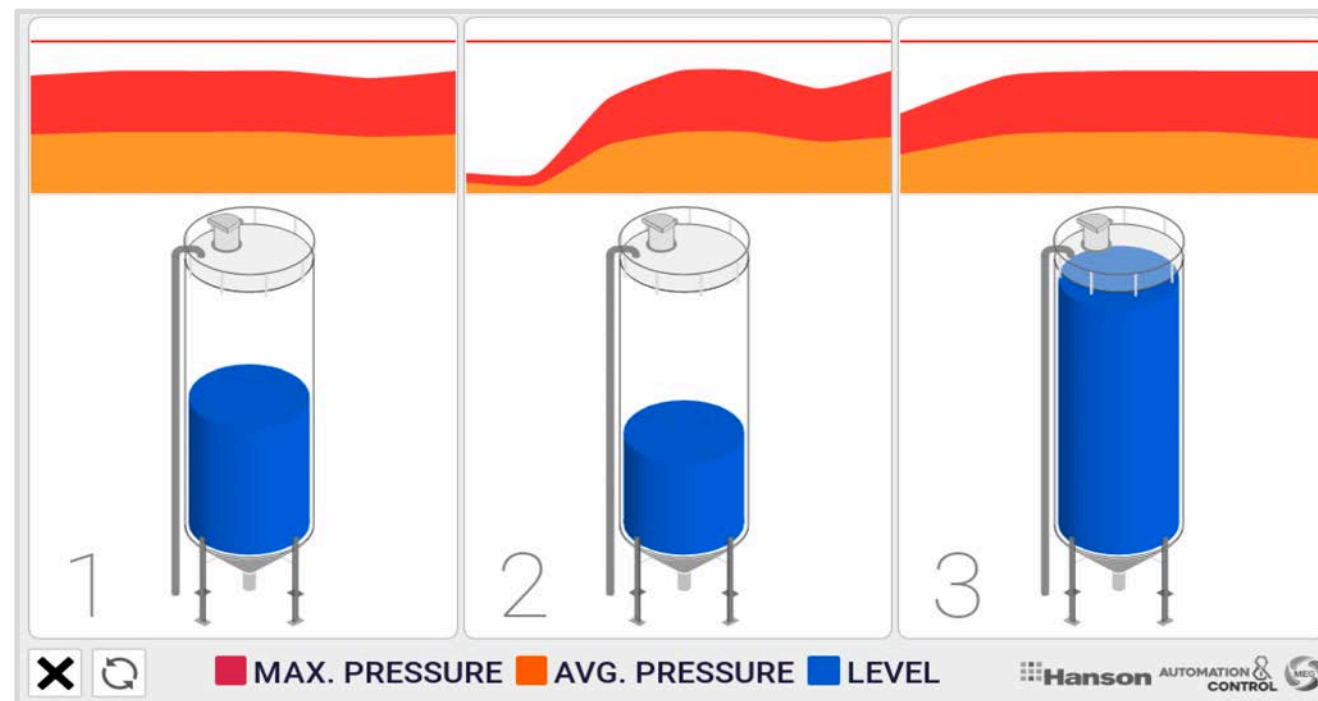
- > Complete Monitoring & Control with Live Volume/Level Feedback
- > Silo Filling and Usage Accountability with Automated Reporting
- > Automatic Filling Cut-off in Over-pressure or High Level Conditions
- > Audible & Visual Alarms
- > One-person Operation - IP66 Touchscreen Silo Control
- > Remote 24/7 Dust Collector Condition Monitoring for Reduced Operational Cost
- > Complete Silo Package Integration and more..
- > Our goal is to protect your asset and investment and adding value to your transaction into the future.



> KEY BENEFITS

> Complete Monitoring & Control with Live Volume/ Level Feedback

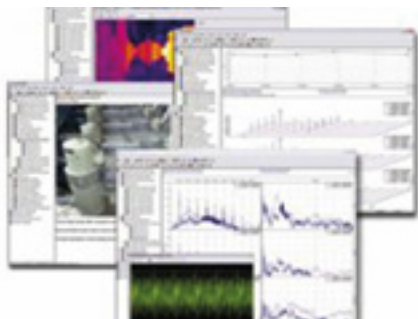
Real time notification of the storage silo levels and pressure via an easy-to-use touchscreen interface, allowing for quick implementation of control solutions, decreasing downtime.



> KEY BENEFITS

> Silo Filling & Usage Accountability with Automated Reporting

The silo protection system can be configured to provide the following feedback and control:



1. TIME & SILO LOG

- Time & date for each usage
- Identification of each driver

2. LOG OF SILO ACTIVITY

- Identification of each silo
- Active filling speeds
- Active silo pressure

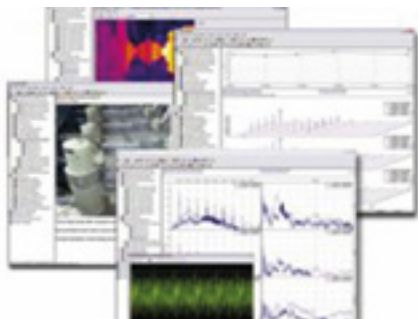
3. HISTORICAL ACTIVITY

- Filling speeds can be checked / Maximised over time to determine the effectiveness of each driver
- Filling rates of each silo can be tracked:
 - Efficiency of the filter on each silo
 - Determine when a silo dust collector requires servicing due to the drop in filling time & increase in typical pressure

> KEY BENEFITS

> Silo Filling & Usage Accountability with Automated Reporting

The silo protection system can be configured to provide the following feedback and control:



4. MAXIMISING FILLING RATE

- To avoid overpressure – this system checks the actual pressure in the silo – regardless of the pressure in the tanker fill lines.
- As the pressure in the silo is to be regulated – the tanker pressure & material feed rate can be increased during filling to minimise filling time / cost.
- The system detects & displays the silo pressure & level at all times so the user can feed fast during filling & back off during the last fill and purge.
- Allowing faster filling over all.

5. SILO PROTECTION – AUTO SHUT OFF

- If lack of user attention to the level & pressure occurs, resulting in missed adjustment of the tanker pressure & fill rate accordingly, the system will override the drive & shut the butterfly valve to prevent overfilling or overpressure.

> KEY BENEFITS

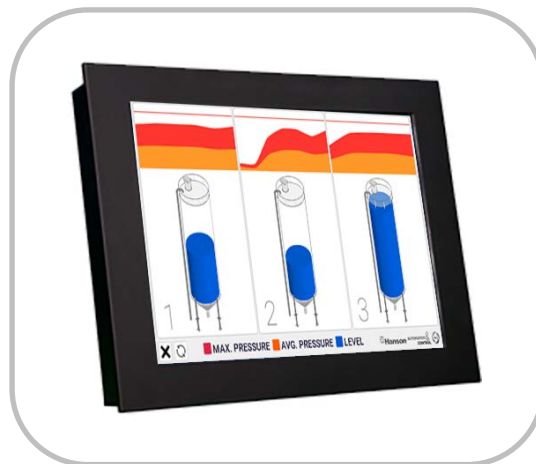
> Audible & Visual Alarms

Providing instant notification of silo complications.



> IP66 Touchscreen Silo Control

With easy-to-use interface technology, the touchscreen control allows for individual user access codes for accurate reporting.



> Automatic Filling Cut-off in Over-pressure or High Level Conditions

Effectively decreases the risk of damage to stock or storage silos.



> OTHER PRODUCTS

Automation & Control can also provide the following:

Robotics:

- Picker Placer
- Multi-axis Robots
- Automated Packaging
- Pallet Handling & Dispensing
- Sence Per-Motion Services

Drive Controls:

- Servo Motors & Drives
- PLC Programming
- VSD Drive Systems
- Plant & Equipment Control Systems
- Drive Enclosure Manufacture

Conveyor & Packaging Systems:

- Modu Conveyor Systems
- Modu Restaurant Food Delivery Systems
- Paglierani Packaging Systems
- Product Dosing & Handling Systems
- Product Weighing & Dispensing
- Food & Picking & Packaging Systems



> FOR FURTHER INFORMATION

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More about A&C

