

# BINMASTER SYSTEMS

## Looking at 5 basic components

When organizations need sensors and software to measure bulk inventory, BinMaster representatives take the application material and other factors to build a system. What does it take to build a system? Five basic components are part of most inventory system for managing solids, powders, or liquids stored in bins, tanks, silos, and other storage vessels. Read on!



## FIVE STEPS TO SIMPLIFY SILO INVENTORY MONITORING

It takes just five basic components to design an inventory system for managing solids, powders, or liquids stored in bins, tanks, silos, and other storage vessels.

### 1) Select the right sensor type for your materials and processing environment.

Common technologies

- > Non-Contact Radar
- > 3D Level Scanners
- > SmartBob
- > Guided Wave Radar
- > Ultrasonic
- > Laser

### 2) Connect and network sensors to a control system or software.

Sensors must be able to communicate via a wired or wireless communication network. Wireless systems reduce the cost and complexity of installation using over-the-air communications.

- > **Daisy chain:** A wiring scheme that allows multiple sensors to be wired together in a sequence to reduce the amount of wiring needed.
- > **Gateways:** Sensors send level data to a gateway that uses LoRa (long range) communications to transmit data to a website application or software.
- > **Wireless Systems:** Wireless radios, bridges, and repeaters are used to span long distances without the use of expensive wiring.

### 3) Determine how you want to access your inventory data.

Consider the type of device you want to use, such as a phone, tablet, or PC. The locations and number of sites and vessels monitored. Whether employees are working at the plant or remotely.

Directly into a PLC or HMI

- > BinView® or FeedView®: Logging into website application
- > Binventory™: Installing software on a local network
- > Facilitate Vendor Managed Inventory

### 4) Provide convenient inventory access in real-time for plant personnel.

Save people time to make them more productive. Inventory at plants is often at a centralized location, such as a control room. Make real-time data easily accessible via a walk or drive up push-button console.







- > **Digital Panel Meters** - Compatible with all types of sensor outputs such as 4-20 mA or Modbus RTU. Large, ultrabright displays are readable in smoke, fog, or bright sunlight
- > **Control Consoles** - Monitor up to 120 vessels with a single console. Display options for height of product, headroom, percentage full, and weight.

### 5) Use point level sensors to alert to high and low levels.

Eliminate material outages and prevent overfills using sensors that alert when vessels are almost empty or full. Get uninterrupted processing, improved margins, and increased outputs.

#### Affordable sensors:

Rotary | Vibrating Rod | Capacitance Probe | Tilt Switch | Diaphragm Switch

Industry	Bulk Material	Sensors	Software	Applications
 <p>Agriculture Farming Livestock</p>	<p>Grain Flour Beans Fertilizer Seed Liquids</p> <p>Bins, silos, tanks, piles, domes</p>	<p>Rotary level indicator Capacitance probe Vibrating rods Diaphragm switch Tilt switch Radar SmartBob 3D sensors Ultrasonic Flow detector</p>	<p>BinCloud BinView AgriView Binventory FeedView 3D Multivision</p>	<p>Prevent overflows Process control Inventory management Remote monitoring Monitor piles Flow detection Bin aeration Dust detection Aeration Ag Chemical Storage</p>
 <p>Bioenergy</p>	<p>Corn DDG Biomass Wood pellets Wood fiber Forest residue</p> <p>Bins, silos, tanks, piles, domes</p>	<p>Rotary level indicator Capacitance probe Vibrating rods Diaphragm switch Tilt switch Radar SmartBob 3D level scanner Ultrasonic Flow detector</p>	<p>BinCloud BinView Binventory 3D Multivision ResinView</p>	<p>Prevent overflows and outages Process control Inventory management Remote monitoring Flow detection Slurry tank detection Measure DDGS</p>
 <p>Cement</p>	<p>Sand Gravel Clinker Rock Powder</p> <p>Bins, clinker silos, tanks, piles, domes, chutes, crushers</p>	<p>Rotary level indicator Capacitance probe Vibrating rods Diaphragm switch Tilt switch Radar SmartBob 3D level scanner Ultrasonic sensor Flow detector Plugged chute detector Airbrator Diffuser air pad</p>	<p>BinCloud BinView Binventory 3D Multivision CementView</p>	<p>Prevent overflows and outages Process control Inventory management Remote monitoring Monitor piles and bunkers Inventory domes Plugged chutes Measure crusher levels ESPs or clinker silos Prevent conveyor overloads Silo aeration</p>
 <p>Food processing</p>	<p>Brewing Foodstuffs Solids Slurries So much more...</p> <p>Silos, mixers, batching tanks, conveyors, pipelines</p>	<p>Rotary level indicator Capacitance probe Vibrating rods Diaphragm switch Tilt switch Radar SmartBob 3D level scanner Ultrasonic sensor Flow detector Airbrator Diffuser air pad</p>	<p>BinCloud BinView AgriView Binventory 3D Multivision</p>	<p>Prevent overflows Inventory management Remote monitoring and VMI Process control Sanitary level measurement Detect levels in mix or slurry tank Detect levels on conveyors Flow detection Silo aeration</p>
 <p>Mining</p>	<p>Lump coal Ores Aggregates Fine alumina powder</p> <p>Silos, crushers, conveyors, domes</p>	<p>Rotary level indicator Capacitance probe Vibrating rods Diaphragm switch Tilt switch Radar SmartBob 3D level scanner Ultrasonic sensor Flow detector Airbrator Diffuser air pad</p>	<p>BinCloud BinView Binventory 3D Multivision CementView</p>	<p>Inventory management Monitor piles Prevent overfills or outages Detecting plugged chutes Measuring inventory in domes Level measure in crushers or bins Prevent overloading Process tanks Remote monitoring Silo aeration Dust detection</p>
 <p>Plastics</p>	<p>Resins Flakes Powders Granules Regrind</p> <p>Silos, bins, containers, hoppers, tanks</p>	<p>Rotary level indicator Capacitance probe Vibrating rods Diaphragm switch Tilt switch Radar SmartBob 3D level scanner Ultrasonic sensor Flow detector Airbrator Diffuser air pad</p>	<p>BinCloud BinView ResinView Binventory 3D Multivision</p>	<p>Prevent silo overflow Eliminate outages Inventory management Remote monitoring Vendor managed inventory Flow detection Bin Aeration Dust Detection</p>