The INSIDER



Second Quarter 2015



The new <u>BinMaster plugged</u> <u>chute detector</u> is a pressure switch specifically designed to alert when a chute becomes clogged with material. It features a heavy spring

and rugged diaphragm material that makes it ideal for use in chutes transporting flowing grain, seed, feed or other granular or pelleted materials. It has UL Class II, Groups E, F & G explosion-proof certification for use in hazardous environments where there is a risk of combustible dust. When a chute becomes plugged, it provides an audible or visual alert when attached to a horn, siren, light or alarm panel.





Model BM65-FHPC for external mounting

BM65-RHPC for internal mounting

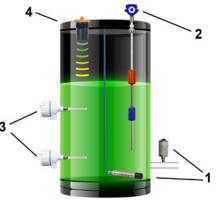
Goodbye plugged chutes:

- Affordable and rugged, made in the USA!
- Simple to install, with reliable operation
- Both Internal or external mounting options
- Heavy duty neoprene with nylon mesh diaphragm
- Material bulk densities from 15 to 90 lb./cu. ft.

New! Liquid Level Measurement Solutions from BinMaster

Contents

BinMaster - a Nebraska company that's well known for measuring your solids and powders – now offers liquid level measurement sensors as your complete solution for inventory management



and tank level monitoring. We now offer reliable, high quality liquid level sensors with hazardous location approvals for all types of liquids from water and wastewaters, fuels, chemicals and just about any non-pressurized liquid tank you need to monitor.

- Pressure Transducers: Submersible and externally mounted models designed for liquid level measurement.
- 2. <u>Magnetostrictive Sensors</u>: Highly accurate and unaffected by temperature in tanks up to 25 feet.
- 3. <u>Capacitance Switches:</u> Point level switches for any size or shape of tank for liquids or slurries.
- 4. <u>Ultrasonic Sensors:</u> Non-contact, continuous level measurement for tanks large and small.
- 5. <u>Guided Wave Radar:</u> Uses time domain reflectometry (TDR) for level measurement.

BinView Remote Monitoring

Get your data in real-time from anywhere via the Internet at www.binlevels.com. View your current and past readings by location, set alarms, configure sensors and set user permissions. Receive email or SMS test message alerts to your computer, mobile phone or tablet.

Call Todd Peterson at 402-434-9102 or email tpeterson@binmaster.com or fill out our Sales and Technical Request Form and he'll get back to you.



Plugged Chutes.....1 Liquid Level Sensors.....1 Fail-Safe Rotary......2 Flow Detect3 3D Scanner Applications4

Volume 42, Issue 22



A MAXimized Rotary is a Better Indicator Don't worry about your level indicator. Let the rotary take care of itself.

Fail-safe protection is built into every MAXIMA+ rotary ... and it has been since 2008. The MAXIMA+ alerts you to a loss of power, a failure of the motor, or the electronics. So, you know when something's up without continually checking its status. Supervisory circuitry monitors shaft rotation and knows if paddles are not rotating due to a covered condition, mechanical failure or power loss. Plus, there's a red LED indicator light - solid, blinking, or off - for at-a-glance status updates. The pulse relay option enables monitoring fault conditions from a PLC.

I WANT SIMPLE OPERATION AND RELIABLE PERFORMANCE. WHAT MAKES THE **MAXIMA+ A SUPERIOR ROTARY?**

ERTIFIE

SO

9001:2008

garner

LITTE I

- · Hazardous location approvals for CSA/US Class II
- Groups, E, F & G and ATEX
- A de-energizing motor that shuts down when material covers the paddle reduces wear and tear
- · Visual monitoring of the unit status via a bright red LED light
- Case-hardened steel motor gears that won't seize or strip
- · Dual, independent time delays up to 25 seconds to prevent false alarms
 - · DPDT relay output for switching versatility for covered and uncovered alerts
- · A screw-off cap that provides easy access to components without hassling with tools
- Universal power supplies 24/115/230 VAC, or 12/24 VDC

CUSTOM OPTIONS, SHORT LEAD TIMES!

Every BinMaster rotary is manufactured in our Lincoln, Nebraska, USA facility using ISO 9001:2008 certified processes to ensure quality. Since we're also a CNC machine shop and vertically integrated, we can offer you the widest variety of customizations and short lead times.



The MAXIMA+ gives you peace of mind without breaking the bank. Call Nathan Grube at 402-434-9102 or email ngrube@binmaster.com to get the scoop on this reliable rotary.



LEARN MORE AT BINMASTER.COM

800-278-4241 or info@binmaster.com

Got Flow? **Prevent Cross Contamination**

The Flow Detect 2000 is a flow/no flow detector for solids and powders. Its compact, single-piece design is easy to install and eliminates a separate controller. Use it in pneumatic chutes, feeders, pipelines, conveyors and bucket elevators at transition points. Prevent cross contamination by ensuring flow has stopped before introducing a new material!



Real-Time, Safe & Reliable **BINVENTORY**TM

Eliminate climbing with automated bin level measurement. Measure powders or bulk solids reliably and accurately. Get data from your PLC, a console, computer, or the cloud in real time. Customize your system for one or 100s of bins for one location or corporate-wide inventory management. Get a simple, economical solution or the most advanced technology – based on your budget and your needs!



Not sure which one is right for you? Call us at 800-278-4241 for a hassle-free, friendly consultation.

New Mercury-Free Tilt Switch for Top Mounting on Bins

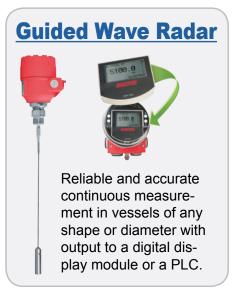


Check out this new and innovative tilt switch with a patent-pending design that's mercury-free! The new **BM-TSM tilt switch** is for high level detection of powders and bulk solids in bins, tanks and silos. It mounts on the top of the bin and activates an alarm when material rises and tilts the switching mechanism 15 degrees.

- Shafts in custom lengths from 1 foot up to 8 feet
- Available with either a paddle or sphere
- For materials with a bulk density of at least 15 lb./cu. ft.
- Installs through a 1-1/4" NPT process connection
- Sends an alert status to a horn, light or control panel

If you need a mercury-free, easyto-own & operate tilt switch, the **BM-TSM** may be the solution you're looking for!

for accurate volume



3D Measures Volume of the Toughest Materials

These 3D profiles are just a few examples of how industries are using 3DLevelScanner technology to solve some of their toughest inventory management challenges. Scaners are proven to perform in powders and solids over 12 lb./cu. ft. Contact Mike Mossage directly at mmossage@binmaster.com to discuss your challenging application.

TALC PRODUCTION



Milled Ore and Talc **Powder Storage** Concentrated slurry sticks to bin walls creating buildup. 3D image shows buildup and calculates true volume.

Talc powder generates dust during the filling and emptying processes. 3D penetrates dust for reliable, real-time volume measurement.

ALUMINA PRODUCTION



Alumina

Powder Silos Alumina powder is stored in silos up to 100' in diameter and 200' tall. The silos are dusty with multiple

filling and emptying points. An MVL multiple scanner system offers accurate level and volume measurement with 3D visualization of the contents.

GLASS PRODUCTION



Raw Materials Storage

Sand, dolomite, soda ash, calamite, broken glass, and manganese oxide used in glass production are stored

in silos. Sufficient inventory is needed to avoid unnecessary work stoppages. 3D provides accurate, real-time measurement of each material using MultiVision software.

ETHANOL



Corn & DDG Silos Conventional singlepoint instrumentation is unable to yield accurate volume measurement of stored material in large silos. Scanners measure multiple points to provide very accurate volume readings and an optional visual profile.

WOOD PELLETS



Wood Biomass/ Sawdust/Pellet Storage Wood chips, saw dust or biomass used to make pellets is stored in silos or warehouses.

Material sticks together creating irregular topography. 3D ensures very accurate and reliable profile and volume readings, despite irregular distribution of silo contents.

PLASTIC PRODUCTION – PP, PE

PP/PE



Storage Silos PP and PE pellets have a low dielectric constant preventing radar-based devices from working reliably.

Dust generated during filling made accurate measurement difficult. 3D dust-penetrating technology now delivers accurate and reliable measurement in harsh conditions.

FLOUR PRODUCTION



Wheat Storage Wheat stored in large silos generates extreme dust during filling. Irregular formations and buildup occur due to large

vessel size. Multiple emptying points add complexity. 3D dust-penetrating technology delivers volume accuracy of stored wheat and wheat by-products.

CALCIUM CARBONATE PRODUCTION



Calcium Carbonate and Crushed Limestone Storage Calcium carbonate and crushed limestone create excessive dust that sticks to silo

800-278-4241

walls. Dust-penetrating technology assures real-time volume measurement, while 3D surface mapping technology accounts for buildup.

SUGAR PRODUCTION



Raw sugar is stored in very large silos or domed warehouses. The stickiness of the sugar leads to random topography

and material buildup inside the silo or dome. Low-frequency acoustics penetrate dust, while multiple point measurement maps uneven topography.

LIME PRODUCTION PROCESS



Limestone Silo Lime, guicklime and slack lime generate dust during filling and emptying. They become sticky and create sidewall

buildup. 3D penetrates dust and accurately maps the material surface. Now, timely maintenance inside the silos prevents disruptions of delivery schedules.

COAL FIRED POWER PLANT



Coal Storage/ ESP Hoppers 3D conquers

extremely dusty conditions in coal silos. Monitor the volume of fly ash

inside an ESP hopper using 3D visualization and detecting buildup as it occurs, protecting against damage to the ESP plates.

BEER PRODUCTION



Grain Storage Malted grains and distiller's rice create dust during the filling process. Humid conditions of cooked grains during the

malting process cause the formation of buildup on silo walls. 3D dust-penetrating technology and 3D surface mapping ensure inventory accuracy.

7201 N 98th St., Lincoln, NE 68507

www.binmaster.com