

The Insider

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...because it's what's inside that counts

Better Accuracy by the Bushel

The BinMaster MVL multi-scanner system is designed to provide the best inventory accuracy available for operations that desire to measure the contents of their biggest bins. It utilizes non-contact, dust-penetrating technology to provide continuous inventory management and supplies a unique 3D representation of the material stored in the bin. The MVL system is intended for very wide bins and is recommended when reliable inventory data is needed for any bin that exceeds 45'. The MVL system is suitable for measuring all types of solid materials and is commonly applied in industries such as grain, cement, mining and coal-fired power plants where managing inventory accuracy in very large, wide storage vessels is essential to continuous operations.

There are an increasing number of 105' and larger diameter bins that are dotting the country's landscape today. These very large diameter bins are precisely what the MVL system was designed to measure. For example, one of BinMaster's first MVL installations was in a corn bin with a capacity of over 600,000 bushels. The 104' tall, corrugated steel bin has a cone top and a generous 105' diameter. It fills at the center and features a flat bottom with multiple empty points. Since installation, the bin has been filled periodically throughout the day at a fill rate of up to 10,000 bushels per hour. With corn storage in great demand, this facility needs to optimize capacity and know how much headroom is available for additional storage.

Two scanners were installed on the top of the bin. The optimal mounting locations were determined using a software tool that comes with the MVL system. In most MVL installations, one scanner is mounted near the center and the other closer to the outer perimeter. This allows for the maximum surface area to be covered by the 3DLevelScanners. The scanners are connected via a daisy chain using an RS-485 protocol. The two scanners send the data to a controller that combines the data into a single merged visual representation of the material topography that is displayed on a local PC loaded with the 3D software. The software also

New BinMaster MVL for Wide Bins

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What's Inside



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105' diameter and million bushel bins are increasingly popular.



No need to climb over 100' to tape bins.

Better Accuracy by the Bushel



Two 3D Level Scanners provide maximum coverage of the material surface.

provides detailed information including volume, minimum and maximum level and distance, and estimated weight. Historical data logs and 3D movies are also available to help manage inventory logistics.

Reaping Big Benefits

Many plants are relying on the MVL system to help them determine high and low points in the bin, and use the visualization to determine where to fill or empty and where there may be buildup or bridging of material that needs to be addressed. For example, continuous buildup in one area of the bin may lead to excessive wear or stress on the structure. The 3D visualization tools allow for preventive maintenance before there is a serious problem.

"This is truly breakthrough technology for our customers who have sought better accuracy solutions for big bins for decades," stated Todd Peterson, Vice President of Sales for BinMaster.

"BinMaster is working closely with every installation of 3D equipment to help customers get the best performance for their investment. Although we are currently installing the MVL system only in large bins, we anticipate that this technology will lead to a solution for customers with bunkers, domes, warehouses and stockpiles of materials that have been virtually impossible to measure."

Calendar

See BinMaster® at these upcoming events.

Midwest Biomass Conference

November 16 to 18, 2010
Grand River Center
Dubuque, IA USA

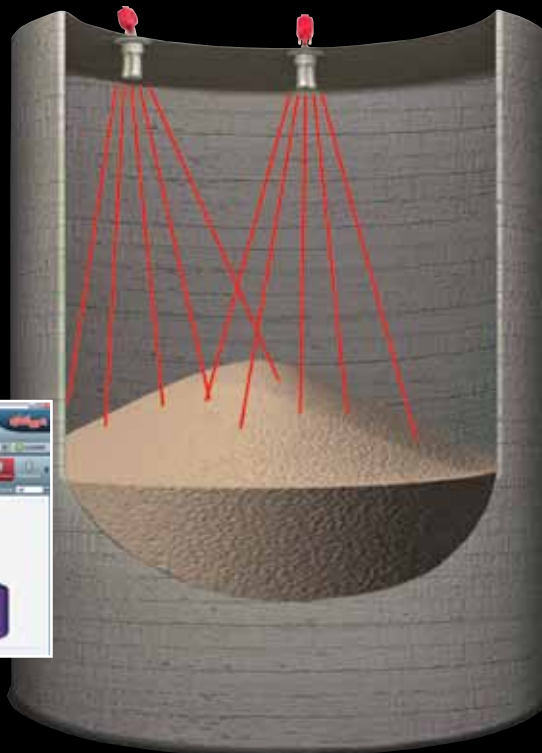
International Feed & Poultry Exhibition

January 26 to 28, 2011
Booth 969 A Hall
Georgia World Congress Center
Atlanta, GA USA

GEAPS

February 27 to March 1, 2011
Booth 1022
Convention Center
Portland, OR USA

Data is sent from the scanners to create a single 3D visualization of contents.



Applications for MVL Systems

- Grain Storage
- Ethanol Plants
- DDGS Bins
- Cement Manufacturing
- Coal Mining
- Power Plants
- Salt Mines
- Sugar Mills
- Fertilizer Production
- Shipping Ports

BinMaster Extends Use of Rotaries

BinMaster has designed a variety of extensions to respond to the different challenges that customers face when applying rotary level indicators in their bins, tanks and silos.

BinMaster BMRX and MAXIMA+ rotaries are built to ISO 9001:2008 certified processes in our 75,000 square foot facility in Lincoln, Nebraska. As part of Garner Industries, BinMaster's plant features an extensive machine shop that manufactures custom parts for BinMaster rotaries to customers' unique specifications.

Vertical Rotary Extension for High Level Detection

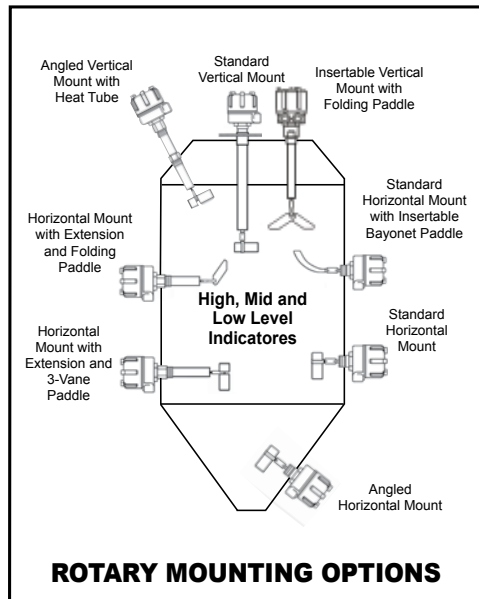
Top-of-bin mounting for rotaries is ideal when the rotary is used as a high level alarm. Solid material tends to be higher at the filling point and most operators don't want any bin filled to

the very top and need to allow for a specified amount of headroom in the bin. For top-of-bin applications, BinMaster manufactures to the length requested by the customer, offering custom lengths up to 144".

BinMaster Builds a Better Rotary

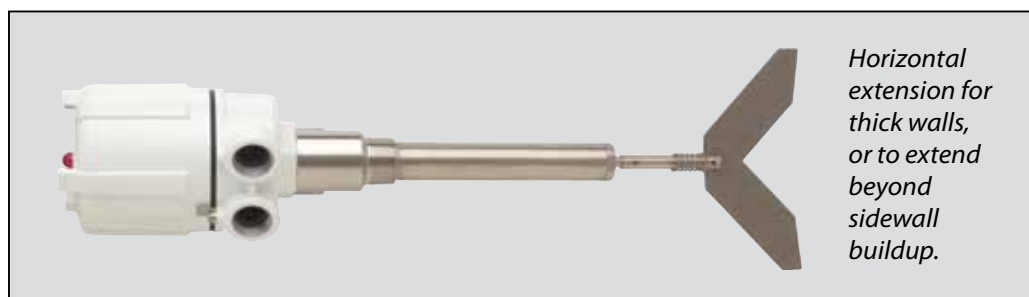
Horizontal Rotary Extension for Thick Bin Walls

The horizontal rotary extension provides the ability to install a rotary on the side of a bin wall, such as those in concrete silos, up to 12" thick. This extension design allows for rotaries to be side-mounted with minimal risk of damage during operations. This optional assembly includes an extended drive shaft with a protective shaft guard that keeps the shaft centered and BinMaster's "no packing" seal at the end of the shaft. Standard lengths of 6", 8", 10", or 12" are available for both the MAXIMA+ or BMRX rotaries.



Stainless Steel Process Connection for Corrosive Materials

BinMaster's optional stainless steel process connection was designed for corrosive applications and can be used in conjunction with either the BMRX or MAXIMA+ rotary. The 304 SS solid stainless steel fitting is available in both 1-1/4" and 1-1/2" NPT sizes and comes with a stainless steel seal/bearing carrier. Rotaries equipped with this connection are configured so all materials that come into contact with the bin are stainless steel, making it ideal for applications such as food processing or in caustic materials.





Established in 1953, Garner Industries is home to the BinMaster® level control business. Additionally, our state-of-the-art ISO 9001:2000 certified facility in Lincoln, Nebraska USA offers jobshop and precision tooling services for a wide variety of industries including automotive, refining, electronics, aerospace, and telecommunications ... to name but a few. Visit www.garnerindustries.com to find out about our full suite of services.



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“From basic level indicators to advanced inventory management for my biggest bins, I call BinMaster.”



3DLevelScanner



SmartBob2



Vibrating Rods



Rotaries



Diaphragm Switches



BINMASTER LEVEL CONTROLS

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