

The Insider

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



A New Spin on Rotaries Advanced Rotary Extension Creates More Mounting Options



Sealed bearing prevents packing.

What's unique about BinMaster's new rotary extension design is the protective bearing at the bottom of the shaft that forms a seal between the rotary shaft and the shaft guard. This bearing prevents bin material from getting packed up into the extension and causing the rotary to give a false "full" signal when the paddle stops turning.

For side-mount applications, the extension provides the ability to install a rotary where bin walls, such as those in concrete silos, are up to 8" thick. Prior to this extension design, rotaries could not be installed or could be damaged during operations. For side mounted applications, lengths of 6", 8", 10", or 12" are available.

Top-of-bin mounting for rotaries is desired when the rotary is used as a high level alarm either alone or in addition to a side-mounted rotary as an extra high level indicator during filling. Solid material will tend 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 72".

**Eight-inch thick bin walls
for side-mounted rotaries?**

No problem!

**Material packing into
rotary extensions?**

Can't happen!

What's Inside



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Sometimes due to space constraints or limited access, side mounting just isn't feasible. Plus, top mount rotary applications are ideal for aggregates or other heavy materials where a side mounted rotary may risk bending or damage due to heavy material falling onto the paddle. For angled mounts, the bearing design keeps the shaft centered, reducing drag on the rotary motor.

In its in-house machine shop, BinMaster manufactures each rotary extension of either aluminum or stainless steel. When required, all components that come into contact with material are made of stainless steel which is often requested for sanitary or food grade operations. The new rotary design also performs better with highly corrosive materials, like fertilizer, that can be very aggressive.

The rotary extension can be integrated with either the BinMaster MAMIXA+ or BRMX rotaries. BMRX is appropriate for hazardous locations where Class I, Groups C and D, or Class II, E, F, and G listings are required. It also offers a "fail-safe" feature that sends an alert when power has been disrupted to the unit, preventing unwanted overfills and eliminating the need to manually inspect the power supply to the unit.



*Performs in corrosive
materials.*

Level Measurement Penetrates the Dust



BinMaster Solutions for High Dust Environments

AAACHOOO!! Dust is perhaps the greatest challenge (and frustration) not only to allergy sufferers, but also in many level and inventory measurement applications. Several technologies – such as radar and ultrasonics – have been unsuccessful in performing reliably in high dust environments, leaving personnel with unreliable data and burdened with equipment in their bins that simply won't work.

BinMaster offers two options – one contact and one non-contact – that can be suitable for continuous level measurement in dusty environments. From flour to flyash ... BinMaster Level Specialists will work with you to understand your inventory control needs and then recommend the solution that is best suited to your application. Let's look at how dust stacks up against BinMaster's "tried & true" SmartBob2 and its new 3DLevelScanner inventory systems.

SmartBob2 Weight & Cable Inventory Management System

HOW IT WORKS IN DUST.

The weight ("Bob") at the end of the cable suspends downward and penetrates the dust and measures the settled solid or powder material based upon how much cable is released at the precise time the weight ("Bob") stops. The measurement – which can be displayed as height or product or distance to product (headroom) – can be read from the eBob software installed on a PC, a SmartBob C-100 Console, or a Remote Start Unit (RSU).

WHY IT WORKS IN DUST.

The weight at the end of the cable goes through the dust and doesn't stop until it comes into contact with settled material. Dust has virtually no impact on SmartBob over time as the cable housing is equipped with brushes that "clean" the cable when it retracts after each measurement, protecting the cable from build up and allowing it to drop freely.

ADVANTAGES OF SMARTBOB2

SmartBob is ideal for single point level measurement where bin levels need to be taken periodically throughout the day. Level

measurements can be programmed to take place at predetermined intervals or initiated as needed from a PC, SmartBob Console or RSU.

SmartBob's mechanical weight & cable design is proven over 20 years of operation in the field and in tens of thousands of bins worldwide. High temperature and explosion proof options make SmartBob2 suitable for many challenging applications.



The eBob software is also capable of displaying the levels of up to 16 bins at one time, for operations where multiple bins must be monitored efficiently. The SmartBob inventory management system can be networked (either wired or wireless) from one up to 100 bins using just one copy of the eBob software and one SmartBob Console.

SmartBob2 is an economical, continuous level measurement system that is suitable for many applications. SmartBob costs less than radar, ultrasonics or the 3DLevelScanner, while providing a wealth of data for effective inventory management.

Cement Block Manufacturer in Florida



Sawdust Hauling Operation in Montana





3DLevelScanner Non-Contact, Inventory Management System

HOW IT WORKS IN DUST.

A very low frequency acoustical signal penetrates the dust and takes measurements which are determined by how long the signal takes to travel to settled solid or powder material and return to the device. Based upon the model of 3DLevelScanner purchased, the scanner will take one or multiple measurements in the bin and send the data to a PC, where the data is graphed over a 24-hour period.

WHY IT WORKS IN DUST.

The 3DLevelScanner is designed to work at very low frequencies which allow the acoustical signals to “ignore” and penetrate suspended dust, unlike other technologies whose signals become “confused” when attempting to take measurements in dusty environments. The acoustical signals, combined with a non-stick material, prevents material from adhering to the internal workings of the device.



Outer unit is coated with buildup from dust.

ADVANTAGES OF THE 3DLEVEL SCANNER

The 3DLevelScanner is a non-contact device, so it is ideal for food processing, pharmaceuticals, or chemicals where contact with the material being measured must be avoided. It is also suitable for “sticky” materials whose level needs to be monitored, but the material could cause



Inside the unit is clean and fully operational.

problems by adhering to the measurement device. It works in dusty applications where other types of non-contact technologies, like ultrasonics and radar fail.

3DLevelScanner can take multiple measurement samples within the bin. While the “S” version measures a single point in the bin like SmartBob, ultrasonics or radar; the “M” and “MV” versions take samples from multiple measurement points within the bin.

The 3D Level Manager software charts the level of the bins over the course of each day allowing for historical tracking, which creates data that is useful for inventory planning purposes. It shows filling and emptying over time, which can be helpful for operations that risk “paralysis” if bins get too full or empty. For example, BinMaster has installed the 3DLevelScanner where waste bins are monitored. In this operation, if waste bins become full, production must stop until the bins can again accommodate waste.

Another benefit of the 3D product is the ability to be linked remotely with BinMaster’s engineering laboratory during the initial installation period while the bin parameters being loaded in the software and fine tuned for optimum performance.

Have a Dust Challenged Bin? Frustrated by technologies that won’t work? Call Todd Peterson at 402-434-9102 or 800-278-4241 or email info@binmaster.com to find out if SmartBob2 or 3DLevelScanner might work for you.

Calendar

See BinMaster® at these upcoming events. Please contact Nathan Grube at 800-278-4241 if you would like more information about the event or to arrange a meeting with us while you are there.

NPE2009

The International Plastics Showcase
Booth 129045
June 22 to 26
McCormick Place
Chicago, IL USA

Mini Rotary & Dust Detect 1000 Update

BinMaster’s Mini-Rotary provides economical and compact rotary level control for small bins and hoppers that contain plastics, food, seed chemicals and other dry powder and bulk solid materials.



Dust Detect 1000 is a single device dust detector designed to continuously monitor the flow of particulate emission from small stacks and initiate an alarm when changes in emissions exceed user-defined parameters.



Download the new brochures on these products at www.binmaster.com.



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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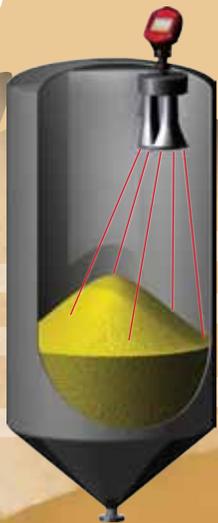
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3DLevelScanner™

Non-Contact, Dust-Penetrating
Bin Volume Measurement

Patented acoustics-based technology
measures bin contents at multiple points



- Measures dusty materials
- Works where radar and sonics have failed
- Generates detailed log reports to PC
- 4 to 20 mA/HART and RS-485
- Low maintenance, self-cleaning



Dusty material,
uneven surface?
No problem!

www.binmaster.com

800.278.4241