

www.3SigmaSystems.com 704-846-1617

## Massage-It Bulk Bag Unloaders with Clamp-It, Close-It and Collapse-It Product - Carbon Black Case History #38-1220

## **Background:**

A customer approached 3Sigma because he was looking to replace his current system with an automated bulk

bag unloading system. A dust tight system was crucial as the two unloaders are to handle carbon black, one of the dirtiest, dustiest bulk materials. Client looked at Flexicon and NBE but partnered with 3Sigma after realizing our large access chamber and dust tight design was the best solution available in the marketplace.

## **Customer Needs:**

- Minimize airborne dusts
- Minimize maintenance items and expense
- Collapse bulk bags at the end of each cycle
- Stop product flow when required.
- Ability to re-tie and remove half full bulk bags

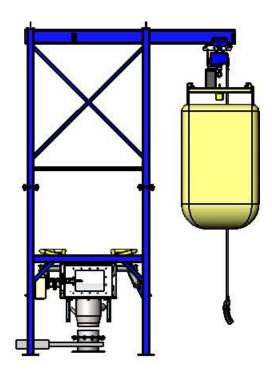
## **Solution:**

- 3Sigma supplied two Massage-It<sup>™</sup> bulk bag unloading systems
- These unloaders use a massaging system to break up the material and push material into the critical flow path
- The oversized Contain-It<sup>™</sup> chamber contains all
  product spills. The chamber is the largest in the industry and is designed
  with the operator in mind, making bag handling is easy
- The Close-It™ system, located within the Contain-It™ chamber, limits airborne dust by allowing the operator to close off the bulk bag spout and then untie the bag or retie partially empty bulk bags
- The Clamp-It™ system seals the bulk bag spout to the Tube-It™ discharge tube, making a Positive dust tight seal
- Material flows directly through the discharge tube to an air actuated slide gate valve, which is placed on the customer's mix tank
- A dust collector was connected to the Contain-It™ chamber, automatically starting and stopping the depending on the status of the chamber door
- The Collapse-It™ dust collection system also allows the operator to remove additional material from the bag at the end of the cycle, further eliminating airborne dusts



Lower Section installed atop mixer. Contain-It™ Chamber with Massage-It™ bag agitation system shown.

Bag is positively clamped to the Tube-It™ discharge spout, flows through this sealed tube, to the mixer below, eliminating dust emissions.





BETTER BY DESIGN™

