

CAROLINA MATERIAL TECHNOLOGIES



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Carolina Conveying

Solibin™ IBC Systems



the power
in
powders

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Solibin™ IBC Systems

“controlled discharge of all materials is vital to modern process systems.”



Cutaway version to view internals only

Carolina Conveying Inc offer the Solibin to meet the needs of the users of IBC's who have found limitations with their present system with regard to the discharge of materials which have compacted during storage or transportation.

The Solibin is a development of the proven technology of the patented Soliflo cone discharge valve. The Solibin eliminates rat-holing, bridging, degradation and segregation, and induces mass flow and discharges difficult materials smoothly and completely, with the benefit of control, accuracy, process security and low maintenance.

Solibin

The Solibin IBC System consists of three parts :-

- The Storage Container
- The Discharge Station
- The Control System

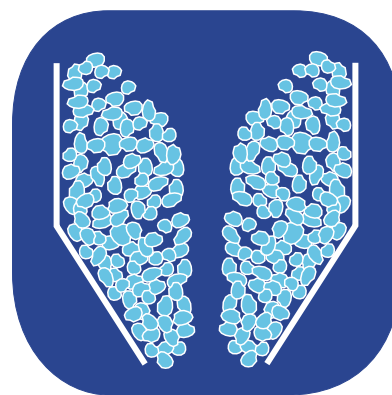
Standard Containers are available in Carbon or Stainless Steel, Polyethylene or Aluminum in 17.5, 35, 50, 70, 85 and 105 cubic foot capacities. These robustly constructed bins are 45 inches square with square to round transition hopper at the bottom, terminating in a 20½ inch diameter outlet to suit the discharge station.

Within the lower part of the container is a spun steel cone incorporating a specially designed seal, which seats in the outlet of the container to form a practical dust-tight seal, whether the bin is full, empty or in transit, providing it is fitted with a transport clamp.

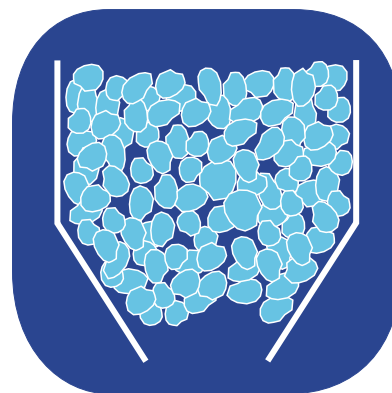
Two types of discharge station are available for fixed or variable flow rate applications. Each station engages automatically with the container, positively locating it in position.

A conical rubber gasket ensures a dust tight seal between the discharge station and the spun steel outlet on the container.

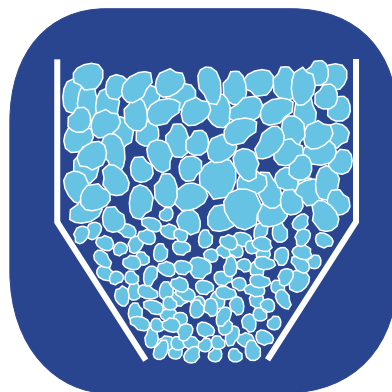
problems



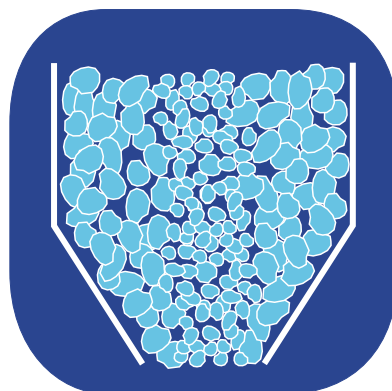
Rat-holing



Bridging



Degradation



Segregation

Mass Flow

Mass flow occurs when the material moves down the vertical portion of the hopper as a solid mass. There is little relative movement between the particles, and the top surface retains its original configuration. This gives a first-in, first-out principle.

Operation

The containers are placed on a discharge station by fork-lift truck, pallet jack or crane. They are located into place by the four corner guides, ensuring proper alignment.

When discharge is required, the pneumatically controlled power pack within the discharge station engages the probe with the container's internal stainless steel cone, lifting this cone from its seat and allowing the stored material to flow out through the resulting annular gap. The process is aided, if required, by gentle vertical vibration applied to the core from the power pack, promoting smooth consistent mass flow from the most difficult of materials.

The empty or part empty containers can be removed at any time with minimal risk of leakage. In fact, the whole process from filling and transporting to discharging can be completed without exposing personnel to airborne particles.



principle of operation



1. Bin lowered onto discharge station.



2. Bin sealed in position ready to discharge.



3. Cone valve lifts and vibrates to discharge materials as required.



Special IBCs produced for offshore oil rigs to handle drilling 'mud'.
Rail mounted to save headroom.

WHO WE ARE

CMT is a manufacturers representative, based centrally in Charlotte, NC, faithfully serving the Carolinas since 1996. We specialize in bulk material handling equipment and system solutions.

Excellence in Everything is more than a slogan. From answering the phone, to consultation meetings, to our website, to proposals, to videos and other sales tools... excellence is demanded.

WHO WE AIM TO BECOME

We desire to be considered the best rep firm in the Carolinas by both our customers and our principles. This starts with our people.

Our staff is attentive, detailed and solution orientated with a core desire to serve our clientele honestly and ethically. In becoming the 'best' it is vital that we partner with the right suppliers who are also honest, ethical and stand behind their solutions. In a day and age where time is our most valuable resource, clients are constantly trying to determine "Who can I trust?". We can say with confidence that hundreds and hundreds, repeatedly trust CMT with their bulk material handling projects

HOW THIS IS ACCOMPLISHED

Our staff is trained, and is continuously trained, in solution based selling which revolves completely around listening and then offering not just 'a' solution, but the best possible solution. There are generally 4-8 ways to solve a particular bulk processing problem, but the key is working and collaborating to provide the best solution. This is what keeps client's returning year after year (23+ years now) to CMT.

MEET OUR TEAM



Scott Dahlgren
Owner and Founder



Carrie Waller
Office Manager



Dan Otarola
IT/Marketing Manager



Alex Norton
Systems Sales Manager



Josh Wright
SC Territory Manager



Katie Wormald
NC Territory Manager



Justin Harrell
Mechanical Engineer

WHAT WE OFFER

25kg Bag Emptying Robots
(Automatic)

25kg Bag Emptying Stations
(Manual)

Bin Activators

Blenders and Mixers

Blowers

Bucket Elevators

Bulk Bag Fillers

Bulk Bag Unloaders

Controllers

Conveying Elbows

Conveyors (Mechanical/Screw)

Conveyors (Pneumatic)

Dust Collectors

Feeders (Mass Flow/Vibratory)

Feeders (Screw/Auger)

Flexible Sleeves

Gates and Valves

Level Controls and Sensors

Magnets

Material Flow Aids

Silos and Tanks

Sizing Equipment/Material

Crushers

Tote/IBC Systems

Venturi Eductors



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