



## ***CUSTOM CONTAINER DISCHARGING SOLUTIONS***

### **The Application:**

A leading specialty food products manufacturer required a means to elevate and discharge various blends of sugars, starches, salts and flours into mixers for new packaging lines. The manufacturer investigated numerous conveying options, but found them all difficult to clean between batches. The equipment needed to be fully automated, fit within a limited space, and have product contact surfaces that were easy to clean between batches.

### **The Solution Provider:**

Material Transfer, located in Allegan, MI, specializes in custom designed material handling equipment to meet customer's specific application requirements. Their product line includes custom container and drum discharging systems, bulk bag conditioners, bulk bag dischargers, bulk bag fillers, and integrated systems. Material Transfer supplies material handling solutions to a wide range of customers in the food, chemical, and plastics industry.

### **Custom Designed Solution:**

The local Material Transfer representative met with the customer at their facility on multiple occasions to share ideas, and discuss their goals, space constraints, and application requirements. The field sales representative and Material Transfer then recommended two (2) Lift & Dump Container Dumpers with their exclusive Lift & Seal System™, and custom caster portable stainless steel bins. The bins and dumper would be designed to work together, with the bins holding enough material that only two (2) dumps were required per batch. The dumper unit needed to rotate under a 259" ceiling height while discharging at 148" above floor level.



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# MATERIAL TRANSFER



Material Handling Equipment & Integrated Systems

Detailed proposals and concept drawings were provided to the customer to illustrate the concept, and soon, an order was placed for the equipment. Material Transfer then set to work, designing the dumper units.

The dumpers featured wash-down duty carbon steel tubular construction, sealed cam rollers on all moving carriages, 304 stainless steel product contact surfaces, a 60° dump angle, PLC controls, and a 5 GPM Parker hydraulic system with a Material Transfer exclusive two-speed operation for reduced equipment cycle times.

The containers are manually loaded into the unit at floor level. With the push of a button, the exclusive MTS Lift & Seal™ system raises the container vertically, hydraulically docking the top of the container against the pour hood. A custom hydraulic circuit ensures the container is securely docked to the pour hood, preventing contaminants from entering the product stream.

The unit then lifts, pivots, and automatically docks to the mixer inlet valve transition. Both the dumper pour hood and mixer inlet feature 20” pneumatically actuated slide gates to ensure product purity. The gates automatically cycle, and the dump carriage returns to the home position.

The unit included metal machine guarding on three sides, and a light curtain on the load side of the unit to ensure operator safety. The customer now experiences clean material transfer, improved operator safety, and easier cleaning.

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