



## Customer Requirements

*An east coast gum supplier has been servicing the food, pharmaceutical and chemical industries with the finest quality gums and stabilizers, making their company one of the forefathers in hydrocolloid ingredient supply.*

- The gum supplier handles a variety of gums such as Agar, Arabic, Carrageenans, Cassia, CMC, Guar Gum, Gum Ghatti, Karaya, Konjac, Locust bean Gum, Tragacanth, Xanthan gum, and Stabilizer Systems.
- The company was using two bag dump hoppers and flexible screw conveyors from another supplier to handle the various gum materials.
- Limited conveying rates and operator safety concerns lead them to consider a new conveying system.

## Spiroflow Solution

Spiroflow recommended, installed and commissioned two side-by-side powder handling systems to meet their requirements. Here is how the two systems operated:

### SYSTEM A

1. A 2,200lb/ 1,000kg bulk bag is loaded into the Spiroflow Loss-in-weight Bulk Bag Unloader via forklift.
2. The gum is transferred from the Bulk Bag Unloader up 20ft/ 6m via a Spiroflow Aero Mechanical Conveyor.
3. The gum material exits the Aero Mechanical Conveyor outlet into a large blender.
4. 50lb/ 25kg bags of gum material are manually added at the adjacent Spiroflow Bag Dump Station fitted with vibration and a dust hood.
5. A horizontal Spiroflow Flexible Screw Conveyor transfers the smaller bags into the aero mechanical conveyor.
6. Once blended, the gum material in the large elevated blender is vacuum transferred to a screening system and then packaged.
7. This conveying system is operated via an existing control panel that Spiroflow reprogrammed.

### SYSTEM B

1. 50lb/ 25kg bags of gum material can be simultaneously emptied into two Spiroflow Bag Dump Stations fitted with vibration.
2. A 5ft/ 1.5m long horizontal Spiroflow Flexible Screw Conveyor installed at the base of one hopper transfers the contents of the 50lb/ 25kg bags into a Spiroflow Aero Mechanical Conveyor.
3. A second 4ft/ 1m long Spiroflow Flexible Screw Conveyor, positioned at 30° and installed at the base of the second hopper, also transfers the contents of the smaller 50lb/ 23kg bags into the Aero Mechanical Conveyor.
4. The 22ft / 7m long Aero Mechanical Conveyor positioned at 60° transfers material up 20ft (6m) to another elevated blender or directly to screening and packaging.
5. This system is operated via a custom weigh batch control panel.

## The Results

The Vice President and owner is very pleased with the results commenting, 'Our Spiroflow powder handling systems have been operating since 2007. The solution is reliable and continues to exceed our expectations.' He added, 'We enjoy working with the Spiroflow team. They understand our needs and are always ready to help with any changes in our production needs. They are a supplier we can count on.'