



One of three bulk bag filling stations



Golden Grove's bulk bag filling stations



Bulk bag filler gain-in-weight control panel

Customer Requirements

Golden Grove founder Lee Swinson, a peanut farmer in Eastern North Carolina, sells his Carolina/Virginia-style peanuts to wholesalers around the world. As the wholesale business grew, Swinson saw opportunities to improve bulk bag filling efficiencies.

1. Golden Grove employees were manually filling 20 bulk bags per day using 3 filling stations.
2. An operator would open the slide gate on the hopper allowing the peanuts to fall into the bulk bag until the bag was within the target 900lb (400kg) weight.
3. The process was extremely slow and labor intensive and weighing accuracies could be improved to increase profitability as well.
4. Golden Grove required a significantly faster contamination-free process to meet the growing wholesale demand.

Spiroflow Solution

Golden Grove initially invested in a single Spiroflow C1-2 bulk bag filling system and the solution worked so well that they quickly purchased two more identical systems.

- A large elevator conveyor continually delivers peanuts to a hopper installed above each filling station.
- Each hopper is fitted with a 10"/ 225mm slide gate valve automatically operated by the filling system control panel.
- All product contact parts on the bulk bag fillers are constructed from 304 Stainless Steel to meet food safety standards.
- Load cells on each filler are connected to a NEMA 4 certified control panel with digital weigh batch controls, a slide gate valve position control and a bag inflation blower fan.
- A flexible connection is installed between the filling head and the base of each hopper as rigid connections would interfere with accurate weighing.

The Results

The new bulk bag filling systems deliver the speed the company needed to meet their growing wholesale business demands.

- With the installation of three Spiroflow gain-in-weight filling systems, the number of dedicated bulk bag filling operators was reduced from nine to one.
- Their filling rate increased to 300 bulk bags per day – a 15X productivity increase!
- Weighing accuracy increased by more than 400% and product spillage was reduced.
- The automated filling system eliminated all operator contact with the product which significantly reduced possible product contamination.

Swinson commented 'Spiroflow is always willing to work with us. Their Controls engineer worked on-site to program the control panels which was well worth the investment.' Lee added 'Spiroflow bulk bag fillers are simple and durable. The Spiroflow solution delivered the filling speed we needed and more.'