



Filling Bulk Bags and Boxes

Accurate Weighing Provides A 5 month Payback!

Application:

Filling Bulk Bags and Boxes

Overview: GE Plastics needed to fill boxes and bulk bags with specialty plastic resin on a new production line. Both package types had to be accurately weighed and filled according to the



production target. A single machine that could fill both packages was desired to minimize capital cost and conserve floor space. Weighing accuracy was critical as the resin is very expensive.

Situation: Control and Metering analyzed the production requirements and proposed a solution based on a single filler with dual weighing systems. The filled packages would be automatically removed from the filler to meet the production rate.

- **Ingredient:** Resin pellets, 40 pcf, approximately \$10.00/lb.
- **Bulk bag:** 35" x 41" x 53", lined, 2,200 lb.
- **Box:** 33" x 44" x 45", lined, 1,100 lb.
- **Production rate:** 10 bulk bags/hr, 20 boxes/hr.
- **Upstream transfer:** Gravity feed from surge hopper.
- **Weighing accuracy:** ± 0.5 kg.
- **Operation:** 1 operator.

Solution:

FLEXIBLE FILLING SYSTEM

Features:

- **Hang weighing** for accurate bulk bag filling;
- **Box weighing** system integrated with filler conveyor system;
- **Cone table densification** for bulk bag stability;
- **Box densification system** integrated with filler conveyor system,
- **Automated bag and box removal.**

Benefits:

- ✓ ± 0.5 kg weighing accuracy;
- ✓ Safe and stable bulk bags; and,
- ✓ High fill rate.

Conclusion:

Precise Weighing, Flexible Operation

The Cobra filling system with integral box filling shuttle provides extremely accurate weighing. The improvement in weighing accuracy compared with existing systems generates a significant saving of over \$200,000 annually.

Bags are filled using the standard Cobra hang filling and cone table densification arrangement. This ensures that the bags are stable and safe. Boxes are filled on a motorized shuttle that indexes into the filler on which is mounted a vibration table and weigh deck. Recipes are software selectable and automatically reconfigure the filler to accommodate the selected package.

The Cobra is easy to use and allows for instantaneous changeover between packages.

Improved weighing accuracy generated a
**pay back for the entire system
of under 5 months and
an ROI of 246%!**