

PLASTIC

Plastic Compounding



S O L U T I O N O V E R V I E W

Flexible Unloading

Each supersack unloading station was installed with a combination of discharge devices to facilitate the possible use of each unloader for different chemical additives. The supersack rests on a vibratory tray with side massaging paddles and a center outlet with an air-operated slidegate. A vibrator, lumpbreaker and magnet are installed on each vented manifold that feeds the vacuum convey systems. This combination of flow-aid devices ensures that any materials can be unloaded through any of the stations.

Testing for Conveying and Discharge Assurance

A full scale vacuum conveying test was conducted in Shick's testing facility. A vacuum filter/receiver was fitted with a 70 degree discharge hopper, vibrator and air cannon to establish which chemical additives would require which combination of

flow-aid devices. All possible materials were vacuum conveyed to confirm that the proper conveying velocity was selected. The materials that tended to bridge and pack were left in the filter/receiver overnight to ensure that they would then discharge, utilizing the selected flow-aid devices.

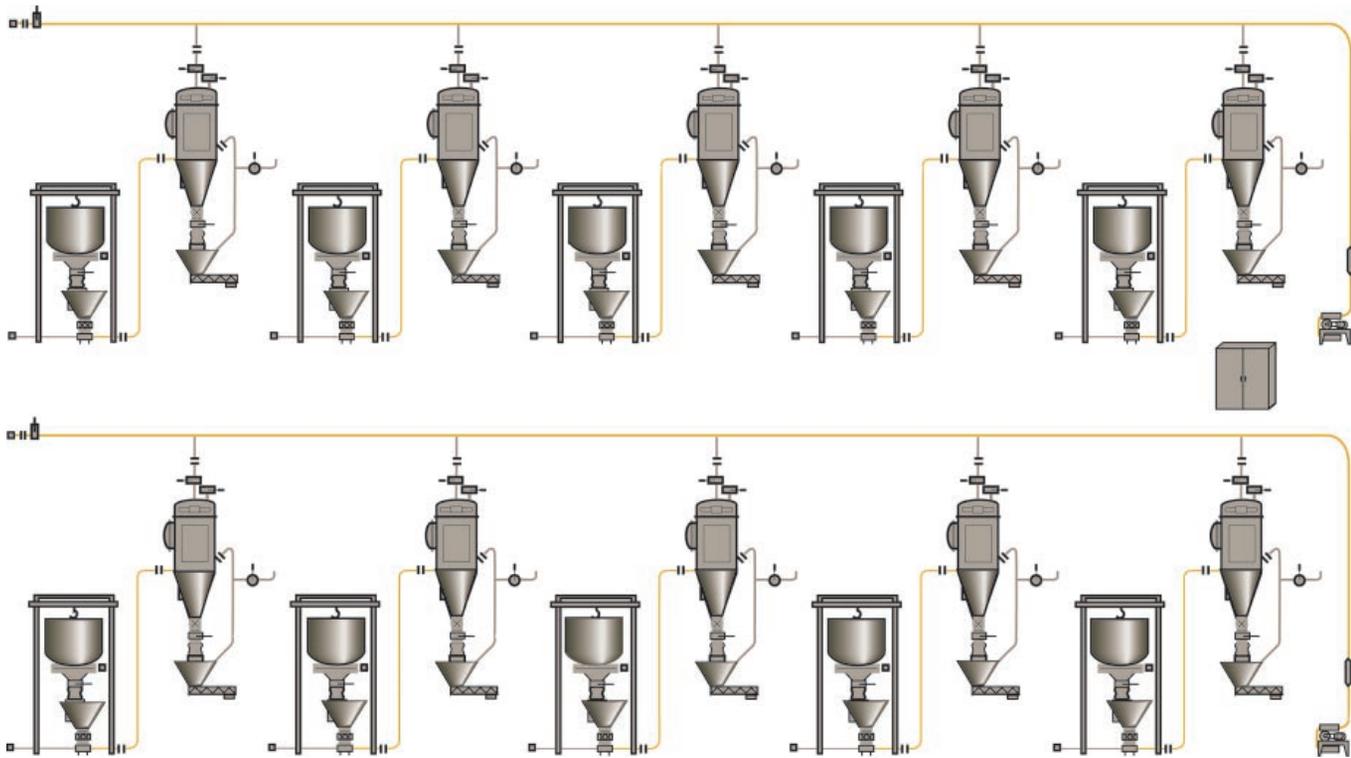
Complete Pre-Assembly and Wiring

Each vacuum filter/receiver was shipped with all attachments pre-assembled and pre-wired. All butterfly valves, rotary valves, slidegates, explosion relief discs, vibrators, air cannons and dust collector control panels were installed and tested. All of these devices were pre-wired with rigid conduit to numbered terminal strips in pre-mounted junction boxes. All filtered receiving vessels were then vacuum tested for full vacuum integrity before crating and shipping. This pre-assembly and testing ensured the end customer a lower cost, trouble-free installation and start-up.

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PROCESS DIAGRAM



Final Product: Plastic Compound

Project Scope:

- Supersack Loadouts (10)
- Vacuum Transfer Systems (2), Each with Sequencing Valves for Receivers (5)
- Leakbreakers and Ferrous Metal Removal
- PLC Controls with Graphics Panel for Operator Input
- Explosion Rupture Discs on Each Vacuum Filter Receiver
- Vibrators and/or Air Cannons on Each Receiver
- Metered Refill of Loss-In-Weight Feeders with Scale Isolation and Venting

Materials Handled:

- Irganox
- Irgafos
- Calcium Stearate
- Erucamide
- BHEB
- BHT
- D STOP

Purchasing Rationale:

Plant expansion for new compounding lines

Installation:

Complete mechanical installations including start-up and training



WORLD HEADQUARTERS

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