



## PLANT SYSTEMS ENGINEERING

### PVC BLENDING SYSTEM: VINYL WINDOW PLANT

**Project Requirements:** A Pennsylvania producer of vinyl windows wanted to accurately blend PVC regrind with virgin. After considering several options, we determined that a screw conveyor with mixing flights would provide the right blend at the right price. The blending ratio was established on a volumetric basis

The system was completed design-build.

#### Project Features:

- Work with equipment vendors to select equipment. Produce all system engineering and construction drawings.
- Engineer and design structural steel for supporting equipment
- Variable frequency drives used for speed control of screw feeders to enable volumetric proportioning
- Custom PLC controls for controlling and monitoring vacuum loading system, hopper levels and screw speeds



*Two vacuum receivers mounted in a steel structure*



*Mixing flights blend PVC virgin and regrind (screw trough cover removed)*



*View of vacuum receivers and blending screw*

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