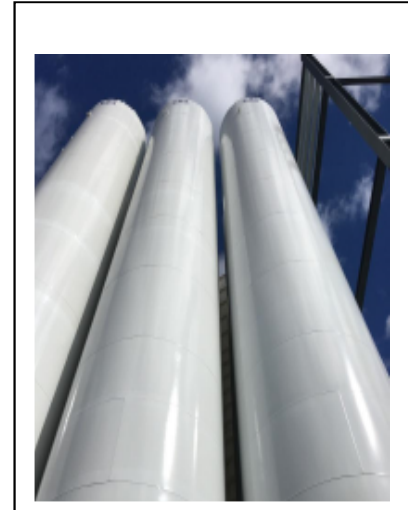


# PLANT SYSTEMS ENGINEERING

## Pneumatic Conveying / Piping Project Case Studies

**Project:** Pulverized Limestone Distribution  
**Year:** 2015  
**Client:** Proprietary  
**Project Location:** Pennsylvania  
**Material:** Pulverized Limestone  
**Services:** Engineering Design  
**Constructed Value:** \$7M

Project design elements included (6) new silos, (6) existing silos, (2) mills, (1) fine grinding system, (42) rotary valves, (29) diverter valves, (6) dust collectors, (17) pressure blowers and thousands of feet of 4" through 8" pneumatic conveying piping interconnecting all the systems.



Designs included general arrangement layout of all equipment, coordination with vendor supplied items, buildings and infrastructure. Designs also included long span pipe bridges, customized pipe support racks, dust collection ducting, compressed air systems.

Retrofit project area with extensive interface into existing equipment. MSHA Plant.

**Project:** Cement Distribution  
**Year:** 2009  
**Client:** ESSROC Cement  
**Project Location:** Martinsburg, WV  
**Material:** Finished Cement  
**Services:** Engineering  
**Constructed Value:** \$5M

Complete design engineering package for distribution of finished cement from new Multi-Cell silo to existing concrete silos. Extensive coordination with equipment vendor Claudius Peters Americas and plant.



Thousands of feet of semi-dense phase (Fluid-Con) piping systems with accompanying compressed air distribution for fluidization. Structural modifications to existing equipment, new dust collection systems and 70' span pipe bridge.

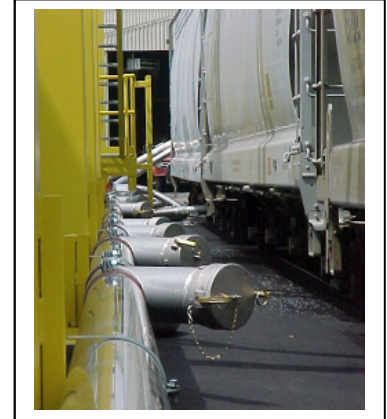
Retrofit project with extensive interface and modifications to existing equipment. MSHA Plant.

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# PLANT SYSTEMS ENGINEERING

**Project:** Conveying Systems - Plastic Pellets  
**Year:** 1996  
**Client:** AEP Industries  
**Project Location:** Mountaintop, PA  
**Material:** Plastic (PE) Pellets  
**Services:** Engineering Design  
**Constructed Value:** \$750K



New plant construction included conveying logistics and piping to move product from (22) silos to (20) blown film machines in plant. Systems included (5) vacuum pumps, (2) 50HP railcar unloading pumps and numerous bin vents.

Designed thousands of feet of 3" and 4" aluminum tubing for product distribution. Create construction drawings, inventories of all materials and coordinate with plant control systems.

Greenfield project area. OSHA Plant.

**Project:** Conveying Systems - Plastic Pellets  
**Year:** 1997  
**Client:** Carlisle Syntec Systems  
**Project Location:** Senatobia, MS  
**Material:** Plastic Pellets for TPO Roofing Material  
**Services:** Engineering Design  
**Constructed Value:** \$1.750M



Plant expansion required (3) additional bulk storage silos and (25) pneumatic receivers for process lines. Process lines also filled via local gaylords.

Pneumatic piping design in 3" aluminum tubing with hose proofing stations to coordinate and verify material source / destination.

Retrofit project with extensive interface into existing equipment and systems. OSHA Plant.

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# PLANT SYSTEMS ENGINEERING

**Project:** Flour Conveying System  
**Year:** 2003  
**Client:** Atteco (Mrs. Tee's Pierogi's)  
**Project Location:** Shenandoah, PA  
**Material:** Flour  
**Services:** Engineering Design  
**Constructed Value:** \$2M



Complete engineering package for storage, conveyance and batch weighing of flour used for pierogi's. Food grade pneumatic piping systems required specialized designs for inspections and cleanout. Included bulk silo unloader to promote flow out of silos and into to dilute phase pressure conveying system.

Retrofit project with limited interface into existing equipment. OSHA Plant.

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