

Macawber Installation Case Study: Calcium Hypochlorite

IN BRIEF

A major chemical company producing water treatment products was looking for a pneumatic conveying system for a process handling calcium hypochlorite. It was important for the system to be fully enclosed to reduce dust while ensuring minimal material degradation. Furthermore, due to calcium hypochlorite's corrosive material characteristics it was necessary to hot dip galvanize the vessel and Teflon coat all contact surfaces. The scope of supply included 2/4-2 Denseveyor®, dense phase pneumatic conveying system including Allen Bradley MicroLogix 1400 PLC, 7" HMI as well as convey pipe, and a terminal box. The customer was very pleased with the system performance and equipment quality.

MATERIAL CHARACTERISTICS

Material	Calcium Hypochlorite
Loose Bulk Density	50 lbs/ft ³
Temperature	212°F
Moisture Content	≤ 13%
Condition	Free Flowing

SYSTEM OBJECTIVES

1. Reduce dust
2. Reduce material degradation
3. Reduce equipment maintenance

SYSTEM PERFORMANCE

Transfer Capacity	0.8T/hr per system
Conveying Distance	40ft
Reception Points	1 (One)

IMPROVEMENTS ACHIEVED

1. Material degradation reduced to acceptable level
2. Eliminated dust
3. Improved equipment life
4. Reduced equipment maintenance

