



An ISO 9001 Company

# CASE STUDY

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U.O.P. of McCook, Illinois relied on Macawber Engineering to pneumatically convey extremely friable alumina catalyst. The systems have operated trouble free since installation four years ago with virtually no degradation to the very fragile catalyst product.

## ■ MATERIAL CHARACTERISTICS

<b>Material</b>	Alumina Catalyst
<b>Bulk Density</b>	34 lb/ cu ft
<b>Size</b>	0.06" x 1.0"
<b>Temperature</b>	System #1 - (400° F), System #2 - (ambient)
<b>Moisture Content</b>	Zero
<b>Condition</b>	Extremely fragile, free flowing

## ■ SYSTEM OBJECTIVES

System design requirements were:

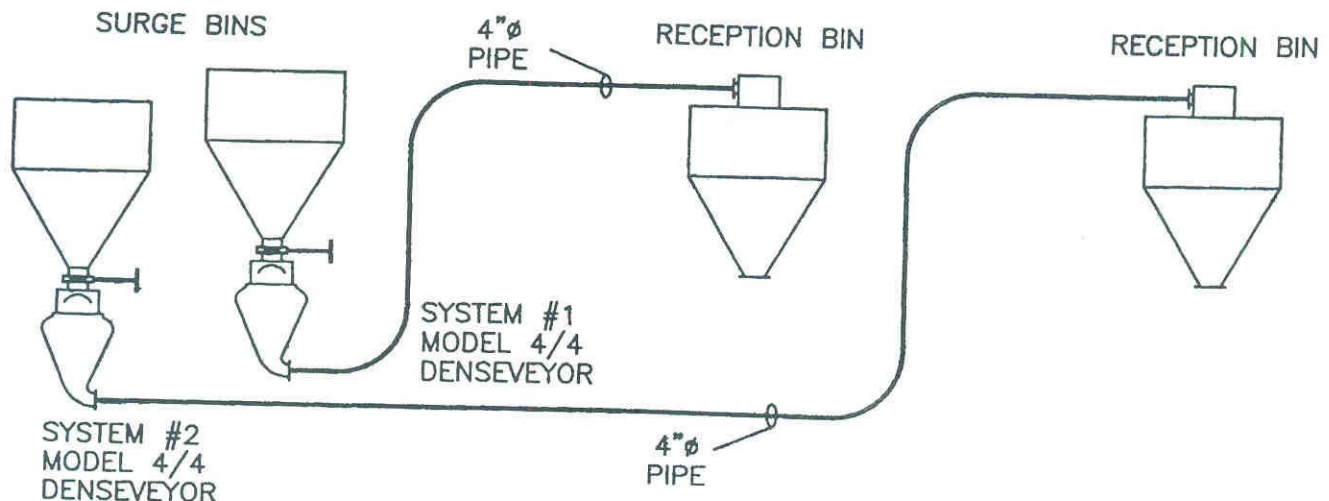
- 1) Transfer of catalyst with minimum degradation to the product
- 2) Reliable, low maintenance operation

## ■ SYSTEM PERFORMANCE

<b>Number of Systems</b>	Two
<b>Transfer Capacity</b>	3600 lb/ hour each
<b>Conveying Distance</b>	system #1 - 70 ft, system #2 - 100 ft
<b>Number of Receptions</b>	One for each system
<b>Air Consumption</b>	30 scfm each system

- Gentle, low velocity conveying results in virtually no degradation to the product.
- Schedule 40 pipe and lightweight bends with low wear.
- Pipeline boosters not required.
- Vessel filled via unique Macawber Dome Valve® - one million cycles between inspections and maintenance free (no lubrication required).
- Compact design and low profile provides for fast, easy installation.
- Denseveyor® is completely factory assembled, functionally tested before shipping and ready for startup.

## ■ SYSTEM DESCRIPTION



**UOP Denseveyor System**