

## Macawber Installation Case Study: Black Beauty – Carlisle, PA, USA

### IN BRIEF

Conveying tests in our custom conveying test house won the day for this project. The customer approached us with the material but was unsure that pneumatic conveying was the way to go for moving it. After our standard characterization tests on the material, we invited the customer to our factory to witness the conveying tests. This is where the true value of having a full-size, pneumatic conveying test bed, in-house, is demonstrated. After successful conveying at our facility, the customer was convinced and confirmed the order. Many times, more than not, if we can invite the customer in to witness their material moving around our full-size test rig, we are well on the way to winning the day. To this day, the customer is convinced they chose the best solution for moving their material – a Macawber, low velocity, dense phase pneumatic conveying system – they ended up buying two!

### MATERIAL CHARACTERISTICS

Material	Black Beauty
Bulk Density	72 lbs./cu.ft.
Size	89% -600 micron
Temperature	Ambient
Moisture Content	0.6%
Condition	Dry and free flowing

### SYSTEM OBJECTIVES

1. Reliable, consistent conveying
2. Low pipe wear
3. Low air consumption

### SYSTEM PERFORMANCE

Transfer Capacity	5,000 pph
Conveying Distance	200 ft.
Reception Points	Customer Bin
Air Consumption	Conveying- 30 scfm @ 100 psig (dry air to -40) Controls- 2 scfm @ 100 psig (dry air to -40)

### IMPROVEMENTS ACHIEVED

1. System operation is stable, reliable and efficient
2. System capacity met or exceeded the specified rate
3. Air consumption was at or below expected volume

