

Macawber Installation Case Study:

Foundry Sand and Dust – Decorah, Iowa, USA

IN BRIEF

Our customer fully opened its new 30,000 ft³ cast plaque foundry in Decorah, Iowa in the spring of 2008. This facility is one of seven production facilities in North America, and produces cast bronze and aluminum, etched, ADA, bas relief, ceramic inserts and photo relief plaques. Already operating several Macawber Denseveyors[®] and Sandpumps[®] for their pneumatic conveying needs, the customer sought another Macawber dense phase system to transport a mixture of reclaimed sand and dust. The answer came in with the acquisition of a new Macawber 0.75/6-2 Ashveyor[®] system. Because of the relatively small volume of material, the Ashveyor's[®] 0.75 cubic foot capacity proved more than capable of automatically moving this material the length of a football field without exposing any employees to the hazardous fumes. Macawber provided safety, automation and savings.

MATERIAL CHARACTERISTICS

Material	Foundry Sand and Dust
Bulk Density	70 lbs./cu.ft
Temperature	300 °F
Moisture Content	0%
Condition	Dry, Free Flowing

SYSTEM OBJECTIVES

1. Recover mixture of reclaimed sand and dust
2. Reduce new foundry sand purchase requirements (cost savings)
3. Reduce used foundry sand disposal requirements (cost savings)
4. Increase plant operational value

SYSTEM PERFORMANCE

Transfer Capacity	2,100 t/hr per system
Conveying Distance	350 ft
Reception Points	1 (one)

IMPROVEMENTS ACHIEVED

1. Automated on-demand operation minimizes utility req's
2. Small robust design fit easily in existing space
3. New sand and waste disposal costs were minimized

