

## Macawber Installation Case Study: **Foundry Sand - Hollidaysburg, PA, USA**

### IN BRIEF

A 175-year-old corporation contracted with Macawber for the supply of 2 Sandpumps® for the purpose of outfitting their foundry located in Hollidaysburg, PA with a foundry core sand reclaim and recycle system. The plant engineer devised a plan that would place 2 Macawber Sandpumps® in service under silos for new and reclaimed foundry sand. They changed from continuously using 100% new mold sand, to an 80/20 new/recycled mix, which has translated into a significant operational savings. The customer has been in business since 1835, and the site where we installed our Sandpumps® happens to be a civil war era building site which has been in the customer's ownership since before the war. Macawber application engineers and field tech's worked with McClanahan engineers to devise a system to collect and separate re-usable mold sand and save considerable expense in both purchasing special mold sand and paying material disposal fees. The systems have been operating continuously now since installation in June of 2007.

### MATERIAL CHARACTERISTICS

Material	Foundry Sand
Bulk Density	100 lbs./cu.ft.
Size	Foundry Sand
Temperature	Ambient
Moisture Content	0%

### SYSTEM OBJECTIVES

1. Reduce new foundry sand purchase requirements (cost savings)
2. Reduce used foundry sand disposal requirements (cost savings)
3. Increase plant operational value

### SYSTEM PERFORMANCE

Transfer Capacity	4 t/h
Conveying Distance	105 ft.
Reception Points	1
Air Consumption	20 scfm at 80/100 psig

### IMPROVEMENTS ACHIEVED

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

