

Macawber Installation Case Study: Silica Sand – Charlotte, NC

IN BRIEF

Two systems to handle sand were installed in Charlotte, North Carolina.

MATERIAL CHARACTERISTICS

Material	Silica Sand
Bulk Density	Aerated 1500 kg/m ³ (100 lb/ft ³)
Size	100% < below 300 microns
Temperature	Ambient
Moisture Content	Zero
Condition	Free flowing, highly abrasive

SYSTEM OBJECTIVES

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

SYSTEM PERFORMANCE

Transfer Capacity	Each system 9 Mt/h (9.9 t/h)
Conveying Distance	30m (100ft)
Reception Points	Two each system

IMPROVEMENTS ACHIEVED

1. System operation is stable, reliable, and efficient
2. System capacity met the specified rate
3. Pipe wear is low

