Macawber Installation Case Study:

Steel Smelter Ash – Tangshan, China

IN BRIEF

The new Caofeidian Industrial Zone on the coast of the Bo Hai sea in N.E. China is seeing rapid growth as a center for steel production, chemical processing, oil refinement and import processing. The customer purchased nine systems comprising mostly Ashveyor® and Denseveyor® systems for the handling of flue gas ash captured through ESP and baghouse processes. The steel plant is a 500T steel processing plant with the need to transfer 87 tons of smelting ash per hour to large on-site storage facilities prior to truck and train load-out.

MATERIAL CHARACTERISTICS

Material	Steel Smelting Ash
Bulk Density	Aerated 1,800 kg/m3 (112 lb/ft3)
Size	70% < 200 mesh
Temperature	Up to 120°C (248°F)
Moisture	Near 0%
Condition	Highly abrasive. Moderately retains air

SYSTEM OBJECTIVES

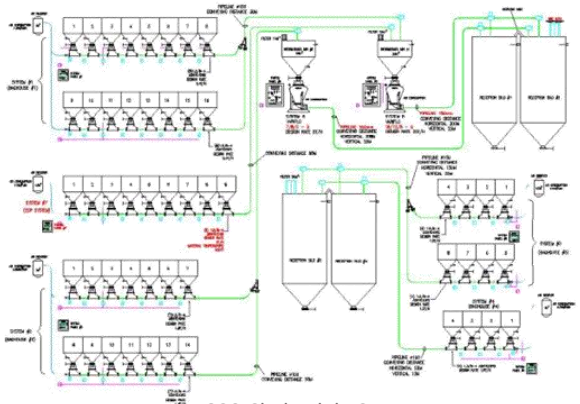
1. Air consumption efficiency
2. Reliable consistent conveying
3. Maintain low pipe and valve wear
4. Meet government mandate for low velocity, dense phase pneumatic conveying

SYSTEM PERFORMANCE

Transfer Capacity	87 Mt/h total
Conveying Distance	Up to 300m (985 ft.)
Reception Points	Multiple
Air Consumption	Total 57.5 Nm3/min (2030scfm)

IMPROVEMENTS ACHIEVED

1. Competitive solution beat customer expectation in quality
2. Customer relationship strengthened through solid delivery on promises
3. Conveying route optimized through customer/supplier collaboration at plant layout design phase. Macawber supported the customer every step of the way.



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