

Mactenn installation case study: Fly Ash Conveying Systems, Poland.

IN BRIEF

Two systems were supplied to convey 8,000Kg/h and 2,300Kg/h over a distance of 80m horizontal and 20m vertical. The systems were 2 x 85 liter vessels on a common 100mm pipe line and 4 x 20 liter vessels on a 50mm single pipe line. Both systems are located under separate feed outlets from an Electrostatic precipitator type feed hopper with start and stop controlled in automatic by the feed hopper and silo reception level probes. The systems are working very reliably with no line blockages and exceed the customer's expectation regarding transfer rate giving a maximum of 14,000Kg/h for system 1 and over 7,000Kg/h for system 2. The pipe line conveying pressure was between 0.35 and 0.55Barg.

MATERIAL CHARACTERISTICS

Fly Ash	100% < 100 micron
Bulk Density	900 Kg/m ³
Temperature	150°C
Moisture Content	0.5% Maximum
Condition	Free Flowing

SYSTEM OBJECTIVES

1. Dense phase low velocity conveying
2. Short delivery.
3. Reliable operation.

SYSTEM PERFORMANCE

Transfer Capacity	14,000Kg/h maximum for system 1 and 7,000Kg/h for system 2
Conveying Distance	100m
Reception Points	1
Feed points	Sys. 1 = 2, sys. 2 = 4

IMPROVEMENTS ACHIEVED

1. Increased transfer rate.
2. Reliable operation.
3. Dust free operation.



Primary vessel showing conveying air supply

Another view of the first vessel showing the air reservoir