Case Study No 2

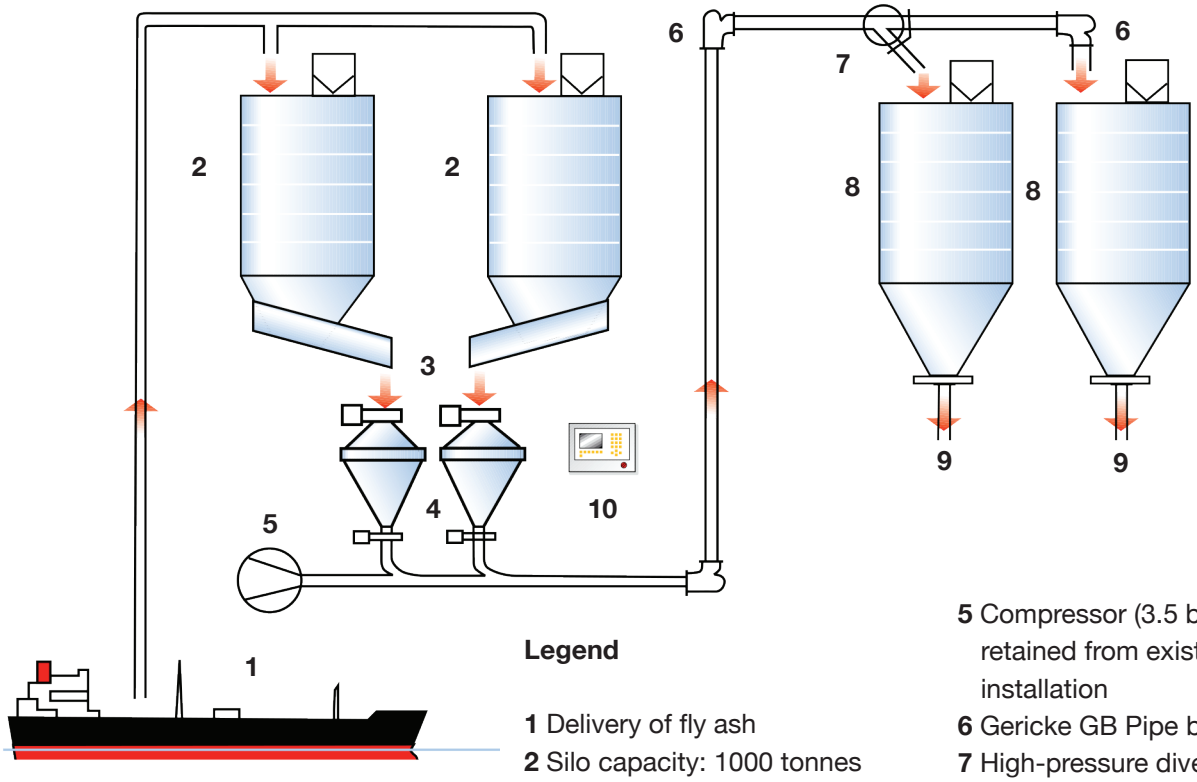
PNEUMATIC DENSE PHASE CONVEYING SYSTEM FOR THE CEMENT INDUSTRY

Description	Conveying system over horizontal distances of 120 and 200 metres, with an additional vertical lift of 25 metres.
Client	EnCI Nederland B.V.
Gericke Technology	Pneumatic dense phase conveying system type PHFD 5750/D with silo-discharge and product-delivery facilities. Twin pressure vessel (transmitter) arrangement. Gericke type GB minimum wear conveyor pipeline elbows. High pressure product diverter type T.B.
Application	The conveying of fly ash from storage silos, via a pipe diverter to the cement mills without any dust emissions.
Material conveyed	Fly ash.
Bulk density	0.6 kg/litre.
Particle size, physical properties	20 to 30 micron. Abrasive and free flowing.
Product source	Bulk silo.
Product destination	Via receiving silo into cement mills.
Conveying rate	Mono-transmitter operation 60 tonnes per hour (ca. 100 m³/h). Twin-transmitter operation 80 tonnes per hour (ca. 133 m³/h).
System requirements	Low wear conveying utilising minimum air requirements for both mono and twin-transmitter operations.

This Gericke dense phase conveyor, reduces the air requirements by 45-50% when compared to other systems. Utilising existing compressors, it was possible to increase the conveying capacity threefold. The low conveying speed reduces wear to an absolute minimum and the unique Gericke pipe-bends allow virtually abrasion-free diversion of the product flow. The Gericke twin-transmitter system ensures maximum conveying efficiency with high output, low air consumption and minimum maintenance.

- Gericke provide a complete turnkey service for system implementation including all controls, installation and commissioning.

- Gericke technical staff are available to help you resolve your bulk solids handling requirements and can arrange full scale pilot system trials.



Legend

1 Delivery of fly ash
2 Silo capacity: 1000 tonnes each
3 Product inlet point
4 Gericke twin transmitter vessel
5 Compressor (3.5 bar) retained from existing installation
6 Gericke GB Pipe bend
7 High-pressure diverter valve, type TB
8 Receiving silos
9 Cement mills
10 Central control system