

Case Study No 3

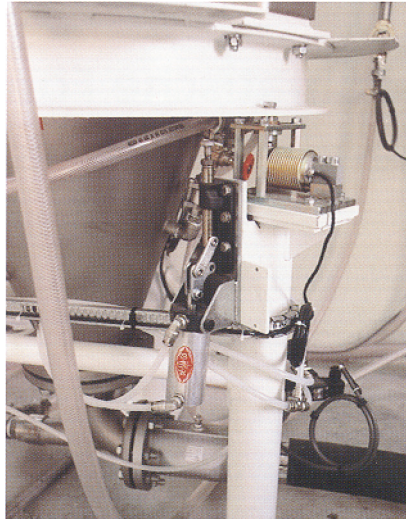
PNEUMATIC CONVEYING LINE INTO REACTION VESSEL

Description	Pneumatic dense phase conveying system over a distance of 200 metres.
Client	Solvay.
Gericke Technology	Dense phase PHF conveying system injecting product into a reaction vessel. The reaction vessel is under pressure and the conveying vessel is mounted onto load cells with fully automatic sequencing controls.
Application	Manufacture of special rubber; PVC stabilizers and associated products to increase processing throughput.
Particle size, physical properties	Natural fibers, bulk density 0.1–1.3 kg/litre.
Material characteristics	Some of the products are very poor flowing.
System requirements	Conveying of product with diverse bulk densities; directly into an agitated pressure vessel; point of injection is below the liquid level; weight control of every batch to monitor the process.

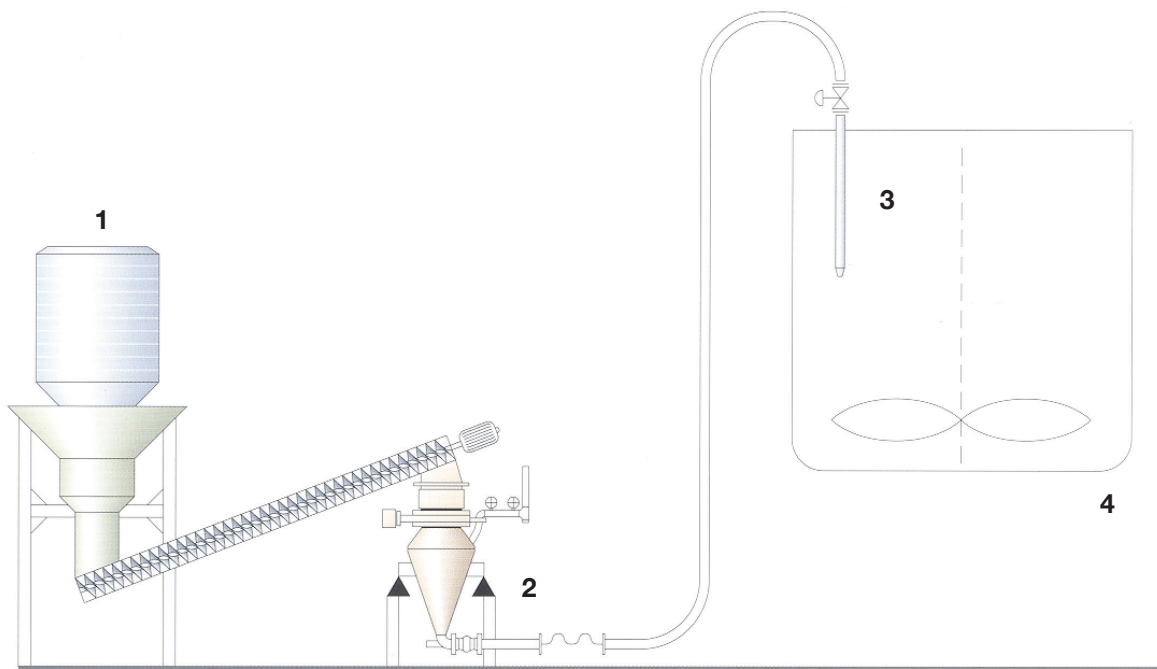


This highly innovative conveying system by Gericke underlines their skills in conveying technology. The mixing and dissolving process is improved by the technology of direct introduction into the receiving vessel. Additional equipment such as hoppers and rotary valves etc. are not required, avoiding further costs.

Each batch is weighed in the sender and conveyed to the reaction vessel. The over pressure in the reactor varies between 0.1 and 2 bar. An intelligent control unit ensures the correct conveying pressure by the Gericke dense phase PHF conveying system. The customer can then improve the mixing and dissolving process.



- Engineering, delivery, installation and commissioning of equipment including PLC by Gericke.
- Gericke offers a test facility for arrange full scale pilot scheme trials under industrial conditions.



Legend

- 1 Big Bag emptying station
- 2 Conveying vessel on load cells
- 3 Injection nozzle
- 4 Reaction vessel under pressure