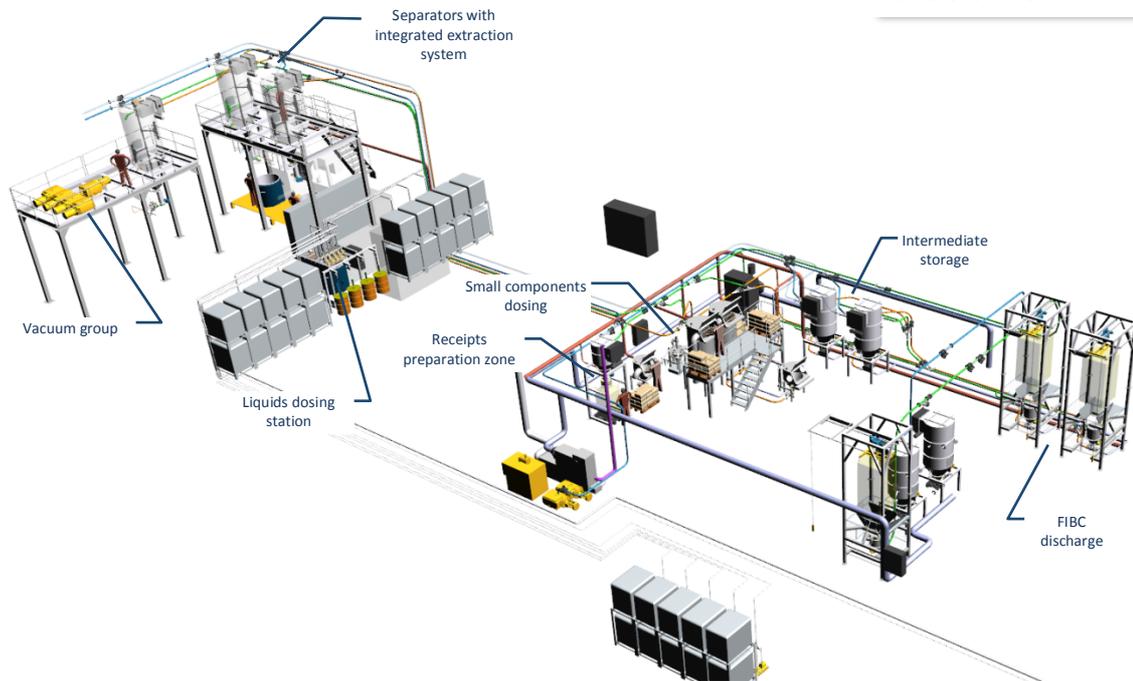


Case Study - Pneumatic conveying to feed mixing line

Description:	Receipts preparation for manufacturing of elastic sealants and adhesives
Product name:	Starch, Calcium, titanium dioxide, zinc carbonate, aerosil and other components
Product supply:	Bags, FIBC's and silos
Density:	From 0.05 up to 1.3 kg/m ³
Physical properties:	In general the products presented very bad flowing and sticky
System capacity:	Up to 6 t/h
Conveying distance:	140 m
Receivers:	Mixers, dryer, intermediate silos, FIBC's

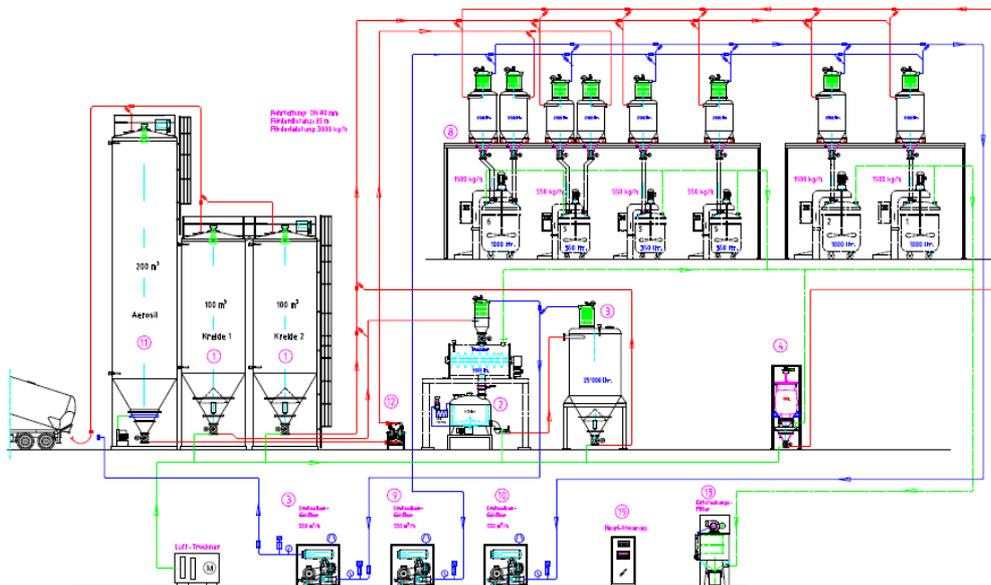
Jetsolutions developed this turn-key project using a multi-phase conveying design. The installation is automatically controlled by a PLC, which allows the receipts management and the interaction with the process supervision system, located in the operation room. The powder is collected from different points with high accuracy and dispensed in different mixers.



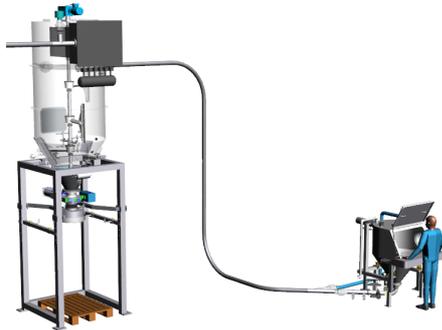
In this project, Jetsolutions delivered a turn-key installation, including:

- Technological framework
- Pneumatic conveying between different floors
- Bags and FIBC discharge
- Liquid dosing
- Full automation of the system with management of the receipts (control from the operation room using a computer)

Installation concept



Reducing the timeout with recipe preparation in FIBC



To reduce the timeout, the receipts are prepared during the batch time.

The different powders are transferred to FIBC's, from the bag dump station. When the recipe is finished, the FIBC goes to the discharging station and the mixer can be quickly filled.



Dosing with high accuracy from the different feeders and dispensing into the mixers



The installation is prepared to produce several t/h of finish product, working with two conveying lines installed in parallel. The products are sucked from different feeders, in function of the production order given by the supervision software. The powders are then dispensed into the final receiver.

One of the main challenges was the required high accuracy, due to the big difference between the main component (2 ton) and the additives (700 g).

Jetsolutions provided also the liquid system to feed the mixers.

Actually, hundreds of receipts are produced with high performance with this installation.