

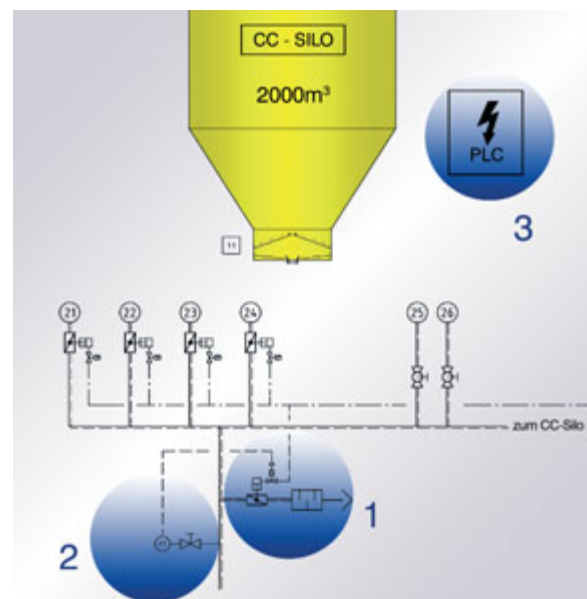
Silo Air flow controller - AFC

Silo Air Flow Controller AFC – Reduction of pulsating material discharge

For all silos, which do not have an expansion chamber technology, it comes with high filling conditions to the problem that aeration air cannot escape by the material column. The consequence is a too high fluidization of the material and fluctuating pressure conditions at the outlet. This leads frequently to a pulsating material discharge.

The Claudius Peters Air Flow Controller - AFC represents for this the suitable system, in order to reduce the material fluctuations. In combination with a flow control gate with controlled function this system can be integrated optimally into existing plants. The Claudius Peters AFC consists of 3 main components:

- Adjustable blow-off flap
- Electronic push button switch
- Controller



① Control flap



② Pressure transmitter



③ Local control panel

Positive characteristics

- Reduction of fluctuating material discharge due to constant aeration conditions
- Less wear at discharge components due to minimized velocity of air/material flow
- Optimization of process conditions in case of changed material or discharge rates
- Usable for all silo types also for other brands

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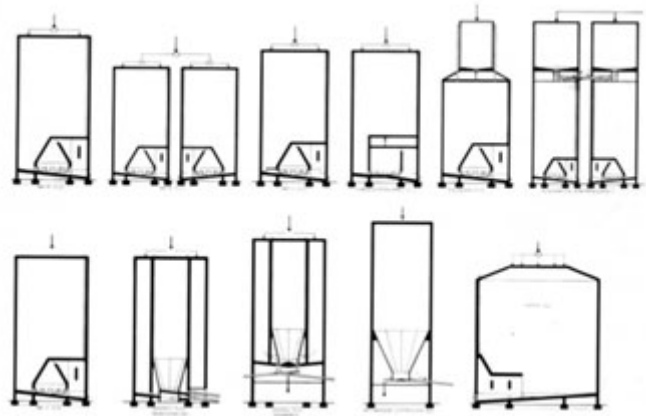
Function mode

A blower compresses the required aeration air into the silo bottom. The bulk material begins to come into a fluidizing phase. Supported by the gravity force of the bulk material column the material flows to the outlet at the center of the silo-bottom by means of gravitation.

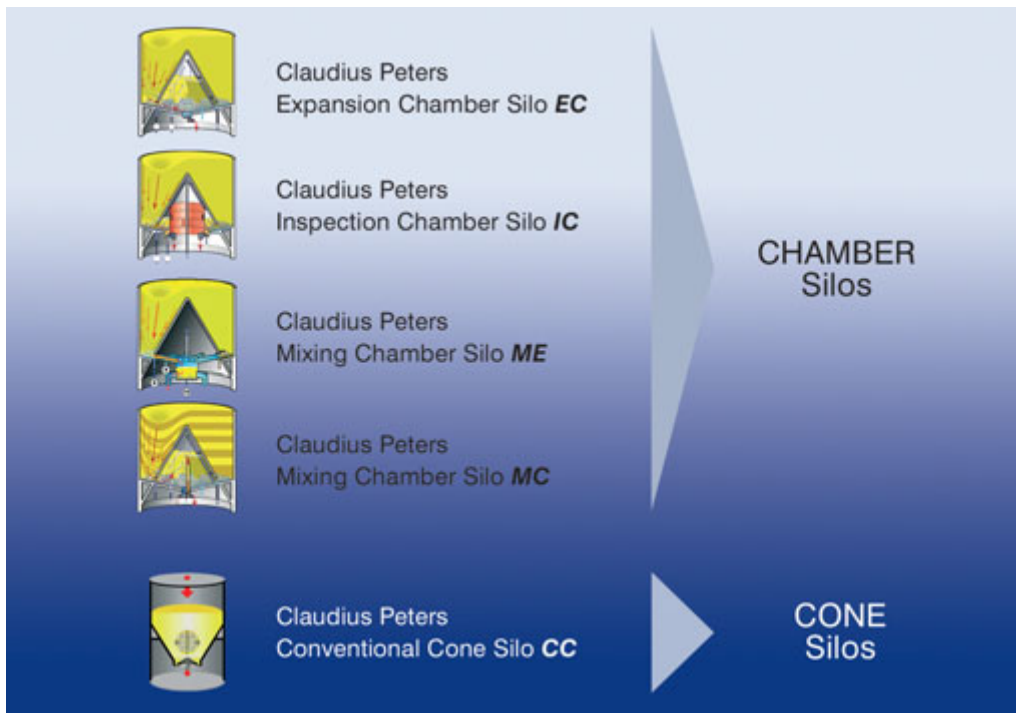
For an even material discharge the aeration pressure represents the main parameter. The desired pressure set point is adjustable at the control unit and can be optimized during process operation. This parameter is kept constant during the entire material discharge time.

A rise of the aeration pressure due to too high fluidization of the material in the silo leads to controlled blow out of aeration air by a control flap across a dedusting piping into an exhaust air system. The pressure reduces to the set point.

Beside an integration in silos without expansion chamber also existing chamber silos can be equipped with the AFC system afterwards. In that case also an optimized regulation of the chamber level is possible.



This system allows an integration in all existing silos especially for those without chamber dedusting.



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