SIMATEK
Filter Technology

Bag filters for the dairy industry

An optimized investment
Effectively delivered

Simatek bag filters for your needs

Process diagram

SimPact 4T-R
A cost-efficient solution which can separate many dust types from a vacuum system, blending station and silos.

SimPact 4T
A cost-efficient, low maintenance solution that gives you the benefit of long filter bag technology.

SimPulse 3C
Low pressure Single-bag cleaning technology that gives you the benefit of long bag life and energy savings.

Our approach to challenges in the milk powder industry

Simatek's bag filters for the milk powder industry are based on technology that offer a cost efficient investment. We do this by providing flexibility in handling a range of milk powders, a low footprint and low operating costs.

This is combined with lower energy consumption through the SimPulse 3C low pressure Pulse Air Distributor – a bag pulsing system that reduces energy consumption at the outlet fan, by up to 30%; the energy consumption for the low-pressure bag pulsing is reduced by up to 80%.

Our bag filters for the milk powder industry also meet the required hygiene design standards including compliance to the European EC 1935/2004, EHEDG and the American 3-A symbol certification and USDA standards.

Where Simatek can contribute to your process

Our process filters can be used in three differed applications

A

Total separator
Bag filter in sanitary execution with CIP for total separation for recovery of powder; the bag filter is replacing cyclones.

B

Sanitary filter
Bag filter in sanitary execution with CIP placed after cyclones for re-use of powder.

C

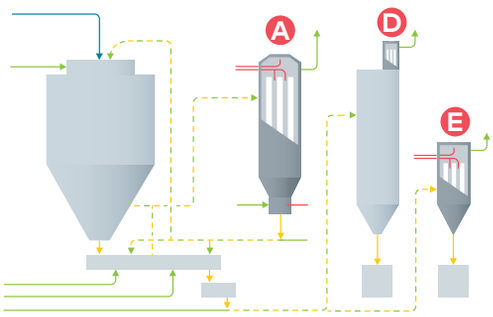
Police filter
Bag filter as police filter - with or without CIP - placed after cyclones for separate powder collection.

D E

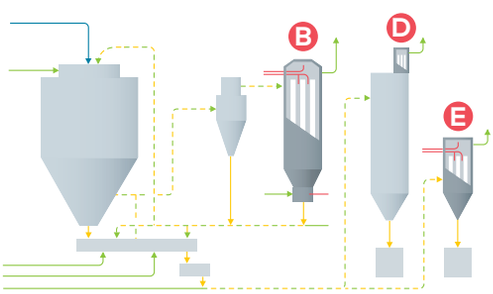
Other bag filters
For powder silo and pneumatic conveying system typically without CIP.

Feed
Air
Powder
CIP

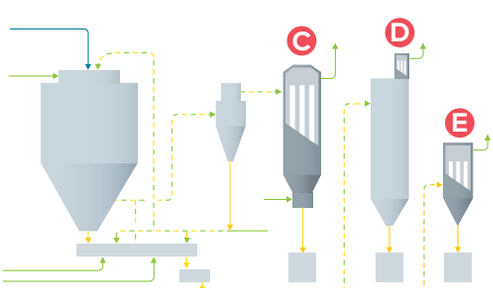
Total separator



Sanitary filter



Police filter



Industry requirements for bag filters

- Hygienic execution
- Cleaning in Place (CIP)
- Blockage free CIP nozzles
- Short CIP turnaround time
- Low operating cost
- Flexible and robust processing
- Optimised product recovery
- Low emissions
- Compliance with regulatory standards
- Long bag lifetime

Efficient handling of dust from raw materials and powder production

Simatek offers bag filter solutions for handling of all kinds of milk based powders.

Emission control

Companies in the dairy industry are supporting and implementing regulations designed to reduce emissions in line with the tightening limits down to 2-5 mg/Nm3.

Optimizing the output of your production.

With a Simatek bag filter, you not only limit emissions to comply with regulatory requirements, you also increase your bottom line and profits through powder recovery and the possibility of heat recovery in the down stream process.

Typical milk based powders:

- Whole milk powder
- Skimmed milk powder
- Infant milk formula powder
- Whey powder
- Whey protein concentrates
- Lactose
- Permeate powder
- Milk protein concentrates
- Speciality milk powder
- Milk-based ingredient powder
- Dairy creamer

Did you know.....

Powder loss from spray driers using a conventional cyclone solution is typically in the range of 0,5 to 2% of powder production. Simatek bag filter technology can reduce this to less than 5 mg/Nm3, corresponding to a loss of less than 0,02% of the powder production.

Calculation examples on bag filter powder recovery

Spray dryer powder capacity	kg/h	1.000	2.000	4.000	5.000
Powder loss using cyclones only	mg/Nm^3	200	200	200	200
Max. Powder loss using bag filter	mg/Nm^3	10	10	10	10
Operation hours pr. year	hours	6.000	6.000	6.000	6.000
Powder recovery from the bag filter	**kg/year**	**25.700**	**51.400**	**102.800**	**128.500**

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