

SIMATEK

Filter Technology

Bag filters CIP- and non CIP-able for process air

An optimised investment.
Effectively delivered.



Process filters

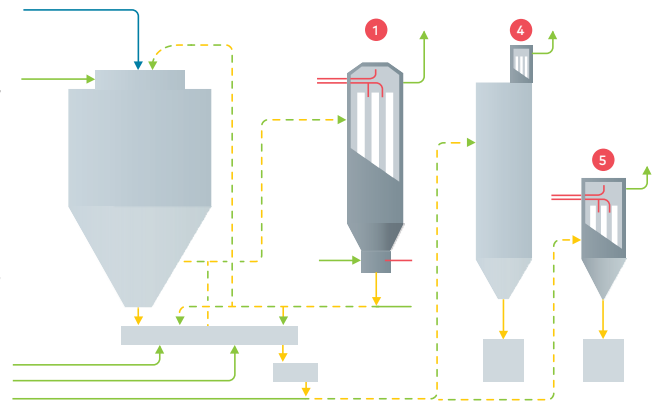
Simatek engineers and manufactures sanitary as well as non-sanitary filters for the process industry including super-sanitary filters holding the 3-A symbol certification. With all our filters – small or large - you get reduced foot print and low operating cost.

Our process filters are used in three differed applications: Total separator, sanitary filter and police filter.

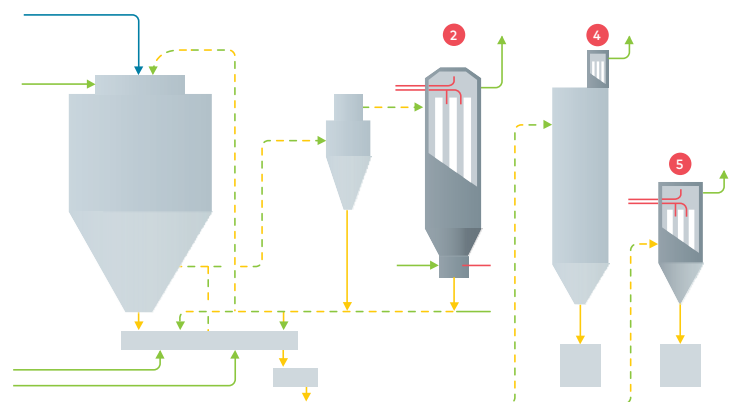
- 1 Bag filter in sanitary execution with CIP for total separation for re-use of powder; bag filter is replacing cyclones.
- 2 Bag filter in sanitary execution with CIP placed after cyclones for re-use of powder.
- 3 Bag filter as police filter - with or without CIP - placed after cyclones, no powder re-use.
- 4 Sanitary silo bag filter.
- 5 Bag filter for pneumatic powder conveying.

Bag filters can replace wet scrubber and cyclone, either as police, sanitary bag filter with CIP as an option or for total separation with CIP.

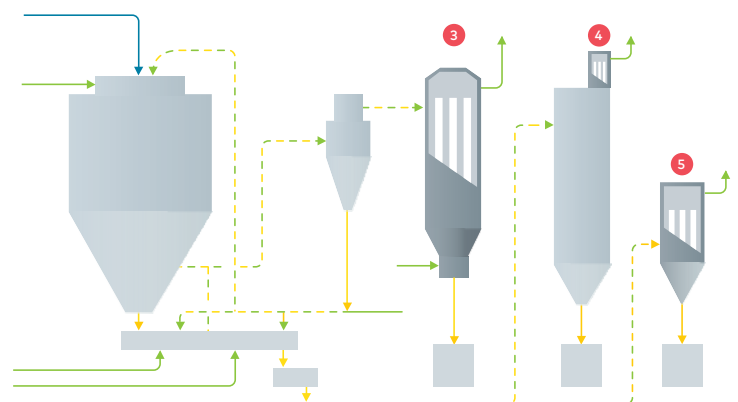
Total separator



Sanitary filter



Police filter



Feed ———
 Air ———
 Powder ———
 CIP ———

Working with us

It's about much more than a high performance filter

Making a difference

At Simatek, we are air filtration experts. Although filters are often a smaller element of a larger solution, they play a key role in plant performance, employee safety, and protection of the environment. At Simatek, we take a holistic perspective. We engineer our products and solutions to provide maximum performance, while making sure they are also financially the best choice.

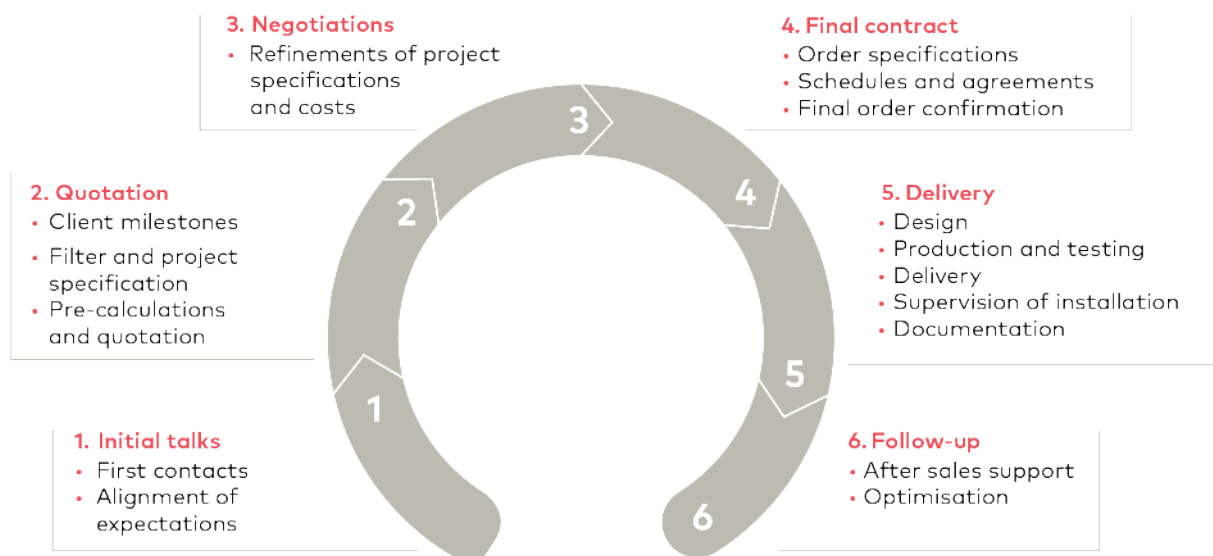
Efficient and agile

While product performance is important, we appreciate that our customers are looking for more than an efficient solution. Meeting agreements and the ability to respond constructively to changing requirements during a build, is equally important for a successful project and partnership.

Every day, we work to be a partner to our customers – a partner with high quality products, who takes responsibility, drives the project forward, responds constructively to challenges, and contributes with knowledge and expertise to deliver the most cost-efficient solution. Our principles for collaborating with our customers secure that we obtain the necessary input at the right time in the process, to deliver to high standards.

With more than 10.500 filters under our belt, we have developed and refined our project execution model to allow us to be as lean and efficient as possible, but also to operate with agility when required by changing circumstances.

Our project wheel



Applications for our process filters

Dairy powder

Industry challenges

With the rise in global population, the demand for dairy powder is expected to increase. Billions of new low-income consumers will need safe processed food products. The challenge the dairy industry faces is balancing this demand with supply globally.

Shipping dairy products is a huge challenge, whereas dairy powders are easy to ship. What the dairy industry will need to focus on is continuous adaptation and innovation to the changing market requirements, whilst keeping cost low. This calls for cost-efficient investment in equipment, flexible processing equipment, high production efficiency and low downtime – all of which contribute to a low cost of ownership.



Industry requirements for bag filters

- Hygienic execution.
- Cleaning in Place (CIP) option.
- Blockage free CIP nozzle.
- Short CIP turnaround time.
- Low investment and low operating cost.
- Flexible and robust processing.
- Optimised product recovery.
- Low emissions.
- Compliance with regulatory standards.
- Longer bag life time.

Simatek has supplied process air bag filters to:

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

Our approach

Simatek's bag filters for the dairy powder industry are based on technology that offer a cost-efficient investment. We do this by providing flexibility in handling a range of dairy powders, a low footprint and low operating costs. This is combined with lower energy consumption through the 3C Pulse Air Distributor – a bag pulsing system that reduces energy consumption

at the outlet fan, by up to 30%; the energy consumption for the bag pulsing is reduced by up to 80%.

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

Food ingredients

Industry challenges

The food ingredients industry produces a range of powdered ingredients used in processed foods and confectionery.

Food ingredients are made from different categories of starch-containing natural products and from protein fractions of natural vegetable products. They include dairy-based ingredients, a combination of food- and dairy-based ingredients, emulsifying and stabilising ingredients. An increasing global demand for high quality and safe food products offers the food ingredients industry a huge growth opportunity.

To make the most of this opportunity, the food ingredients industry needs cost effective and flexible processing equipment that meets necessary industry and customer standards and requirements.

Industry requirements for bag filters

- Low investment
- Product recovery and low emission
- Low operating cost
- Flexible and robust processing
- Sanitary and hygienic execution
- CIP option
- Short CIP turn-around time
- Regulatory compliance

Simatek has supplied process air bag filters to:

- Maltodextrin
- Potato starch and protein
- Soy protein, isolates and concentrates
- Flavours
- Yeast
- Yeast extract
- Fruit powder
- Egg powder
- Cheese powder
- High fat animal and vegetable powder
- Tomato powder
- Emulsifiers and stabilisers



Our approach

Our SimPulse bag filters (with or without CIP) are a cost-effective investment for customers. They meet the food ingredients industry's specific needs while offering a low-cost of ownership. We do this by delivering high process flexibility, meeting different capacity requirements, optimised product recovery and emission control. Our SimPulse bag filters are equipped

with the 3C Pulse Air Distributor (PAD) – a bag pulsing system that operates the filters at a low DP. This reduces energy consumption at the outlet fan by up to 30%.

Applications for our process filters

Powdered beverages

Industry challenges

The powdered beverages industry includes a range of beverages that are ready to drink when mixed with hot or cold water. In addition to coffee and tea, locally grown products like coconut are now available in the market in the form of powdered beverages.

With the rise in global population, there is an increasing demand for easy-to-use and healthy powdered beverages. These beverages present certain challenges in production and processing as they tend to be hygroscopic – they absorb and retain moisture easily.

Industry requirements for bag filters

- Low investment
- Product recovery and low emission
- Low operating cost
- Flexibility and robust processing
- Sanitary and Hygienic execution
- No risk of condensation
- CIP option
- Short CIP turn-around time
- Regulatory Compliance

Simatek has supplied process air bag filters to:

- Cocoa powder
- Coconut powder
- Coffee powder
- Tea powder
- Herbal extract



Our approach

Our SimPulse bag filters offer the industry the ability to efficiently process powdered beverages. Our SimPulse bag filters are equipped with the 3C Pulse Air Distributor (PAD) – a bag pulsing system that operates the filters at a low DP. This reduces energy consumption at the outlet fan by up to 30%

Combined with Simatek's long-standing global expertise and dedicated after-sales service, our solutions meet the special needs of our customers.

Speciality powders

Industry challenges

The speciality powders industry manufactures special inorganic powders used in the pharmaceutical industry.

The challenge the industry faces is ensuring that the product is not exposed to the environment during production and processing. Efficient product recovery and emission control are other important elements. This calls for automatic Cleaning in Place (CIP) of filter bags and all internal surfaces.

Industry requirements for bag filters

Meeting specific construction requirements

- CIP option
- Short CIP turnaround time
- Low investment and low operating costs
- Low emissions
- Flexible and robust processing
- Regulatory compliance

Simatek has supplied process air bag filters to:

- Enzymes
- Pharmaceutical intermediate ingredients
- Active pharmaceutical ingredients
- Blood products
- Sea wheed extract



Our approach

Our SimPulse bag filters (with or without CIP) are a cost-effective investment for customers. They meet the speciality powders industry's specific needs while offering a low-cost of ownership.

We do this by delivering high process flexibility, meeting different capacity requirements, optimised product recovery and emission control.

Our SimPulse bag filters are equipped with the 3C Pulse Air Distributor (PAD) – a bag pulsing system that operates the filters at a low DP. This reduces energy consumption at the outlet fan by up to 30%

Documentation and quality

Comprehensive documentation that meets compliance standards and covers the entire project management process

Documentation

With increasing legal requirements, we have experienced an increasing demand for ever more detailed documentation. At Simatek, we continuously adapt and develop our documentation to meet both official legal standards and specific customer requirements.

Documentation is an integral part of our project management process – from the initial quote to delivery and installation of the filtration system. As part of our documentation, we provide product and component descriptions, technical specifications, safety and compliance information and user guides for installation, configuration and maintenance.

We work with our customers during the initial quotation phase to understand their specific documentation needs. This is written into the final contract and the full documentation is delivered to the customer at project completion.

CE marking

For the enduser to achieve the CE marking, our filters are delivered with an IIB declaration in accordance with machine directive 2006/42/EC. Further to this Simatek can offer the preparation of the IIA declaration of conformity for the entire Simatek delivery.

Standards and certificates

Simatek has received several certificates endorsing our ability to meet and deliver solutions according to various compliance standards and directives. Our dust collection and aspiration filters and the accompanying equipment meet the following standards and EU directives where relevant and applicable:



3CX-CIP

Certificates

- 3-A symbol certification for bag collectors (40-04).
- TÜV VDI 2263 Part 3 compliance certification mandated by TÜV NORD CERT.
- Declarations of Conformity of the EurAsEC Customs Union to Technical Requirements.
- Inspecta certified permission to re-stamp material used for producing pressure resistant filters.
- Smiley scheme – regular inspection by DVFA (the Ministry of Food, Agriculture and Fisheries) to secure food safety.
- Declaration of conformity to the Technical Regulations of Ukraine.

Directives

- ATEX Directive 2014/34/EU.
- Machinery Directive 2006/42/EC, incl. relevant harmonized standards.
- Directive 2014/68/EU Pressure Equipment Directive (PED), incl. relevant harmonized standards.
- Directive 2014/29/EU for simple pressure vessels, incl. relevant harmonized standards.
- Low Voltage Directive 2014/35/EU, incl. relevant harmonized standards.
- EMC Directive 2014/30/EU, incl. relevant harmonized standards.
- Regulation (EC) no. 1935/2004 on materials and articles intended for food contact.



After sales services

Ensuring high filter performance during its entire lifetime

Service solutions

Round-the-clock global service, that keeps your operations running smoothly with minimum downtime

Through our service and maintenance support, we offer:

- Supervision for installation and overhaul.
- Regular service inspections and preventive maintenance services.
- On-site troubleshooting.
- 24-hour technical service support via our hotline.
- Commissioning services.
- Support and maintenance contracts.

Original spare parts

an assurance of quality parts that fit your Simatek solution and serve you for years

When you choose original Simatek spare parts, you get:

- A wide range of spare parts that are always in stock.
- Products that are easy to use and of high quality.
- 24-hour technical service support via our hotline.
- Solutions tailored to meet your needs.
- Detailed and easy-to-use user manuals with comprehensive spare parts documentation.

Filter bag and filter cage technology

that delivers a perfect fit between filter bags and filter cages while offering optimal cleaning

At Simatek, we work with the best technology in all our offerings. We have long-standing experience in filter bag technology and our filter cages are designed to ensure optimal performance and easy maintenance.

We offer solutions that match your individual needs. Combined with our technical expertise, support and reliable documentation, you're assured of the best.

Filter baghouse accessories

that ensure a high utilisation ratio on your filtration systems

As a part of the original Simatek installation package, we supply several accessories for our filter baghouse.

We stock a large number of spare parts for these accessories as well as complete units for quick replacements and larger retrofit solutions.

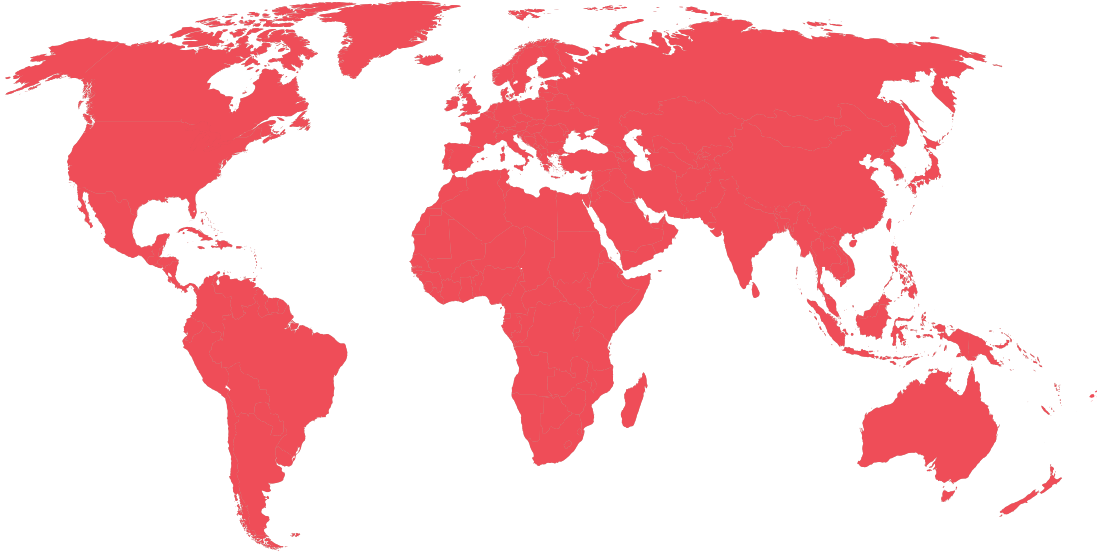
Retrofit solutions

that improve performance and extend the life of your filters

Our retrofit solutions keep your filtration systems up to date when it comes to:

- Functionality.
- Efficiency.
- Capacity.
- Legal requirements to meet environmental standards.
- New standards in line with plant upgrades.
- Ensuring an ergonomic working environment.
- Legal requirements to meet Work Place Hazards standards, especially in the field of ATEX conformity.

Simatek at a glance

**45+**

years of experience

16.500+

filters installed in more than 80 countries

Air filtration specialists

With more than 10.500 Simatek filters installed around the world, we can confidently say we have the skills and expertise to deliver projects to high standards. With our dedicated team of employees we efficiently move projects from contract and design to delivery, almost anywhere in the world.

An optimised investment. Efficiently delivered.

Founded in 1981, Simatek is a leading manufacturer of industrial air filtration solutions. Our high-tech products and systems optimise footprint, performance and maintenance for industrial plants worldwide. All at a low cost of ownership.

Our main areas of expertise:

- Dust collection and aspiration: A wide range of pulse-jet bag filters designed to work with dust explosive atmosphere and meet international standards and certifications.
- Process air: Simatek engineers and manufactures sanitary bag filters according to the requirements of the food and dairy industry – including process filters with Cleaning In Place (CIP) and super sanitary bag filters approved according to the USDA and with 3-A symbol certification.

Unique technology and specialised expertise are at the heart of everything we do at Simatek. Our core team of dedicated employees – alongside our global network of partners and representatives – are ready to help you find the solution that will benefit your business the most.

We call this an optimised investment, effectively delivered.

SIMATEK
Filter Technology

Simatek A/S
Herstedvang 14
DK-2620 Albertslund
Denmark

Tel. (+45) 58 84 15 00
Email: office@simatek.com
www.simatek.com