

## Bag filters for the coffee industry

Clean air for a better world



# Efficient handling of coffee dust and powder

Whether it is handling whole coffee beans, ground or instant coffee, Simatek has a bag filter solution that improves the operators' working environment and increases the bottom line – all while protecting the environment.

## Emission control

Today, there is a firm focus on protecting the environment. Many companies within the food industry are promoting and enforcing the regulation aimed at reducing emissions, according to the EU's COMMISSION IMPLEMENTING DECISION 2019/2031 from November 12th, 2019. "In new plants, this means limiting emissions down to 2-5 mg/Nm<sup>3</sup> and in existing plants 2-10mg/Nm<sup>3</sup>."

"Commissioned in spring 2019, our Simatek bag filter succeeded in ensuring dust levels of less than 10 mg/Nm<sup>3</sup> in the exhaust air."

PRODUCTOS SOLUBLES S.A.  
a Spanish coffee powder manufacturer.

## Turning powder loss into increased revenue and profits.

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. With typical payback periods of less than three years and with a technical and economic lifetime of more than 20 years, a Simatek bag filter will generate significant increased revenue and a better bottom line year after year.

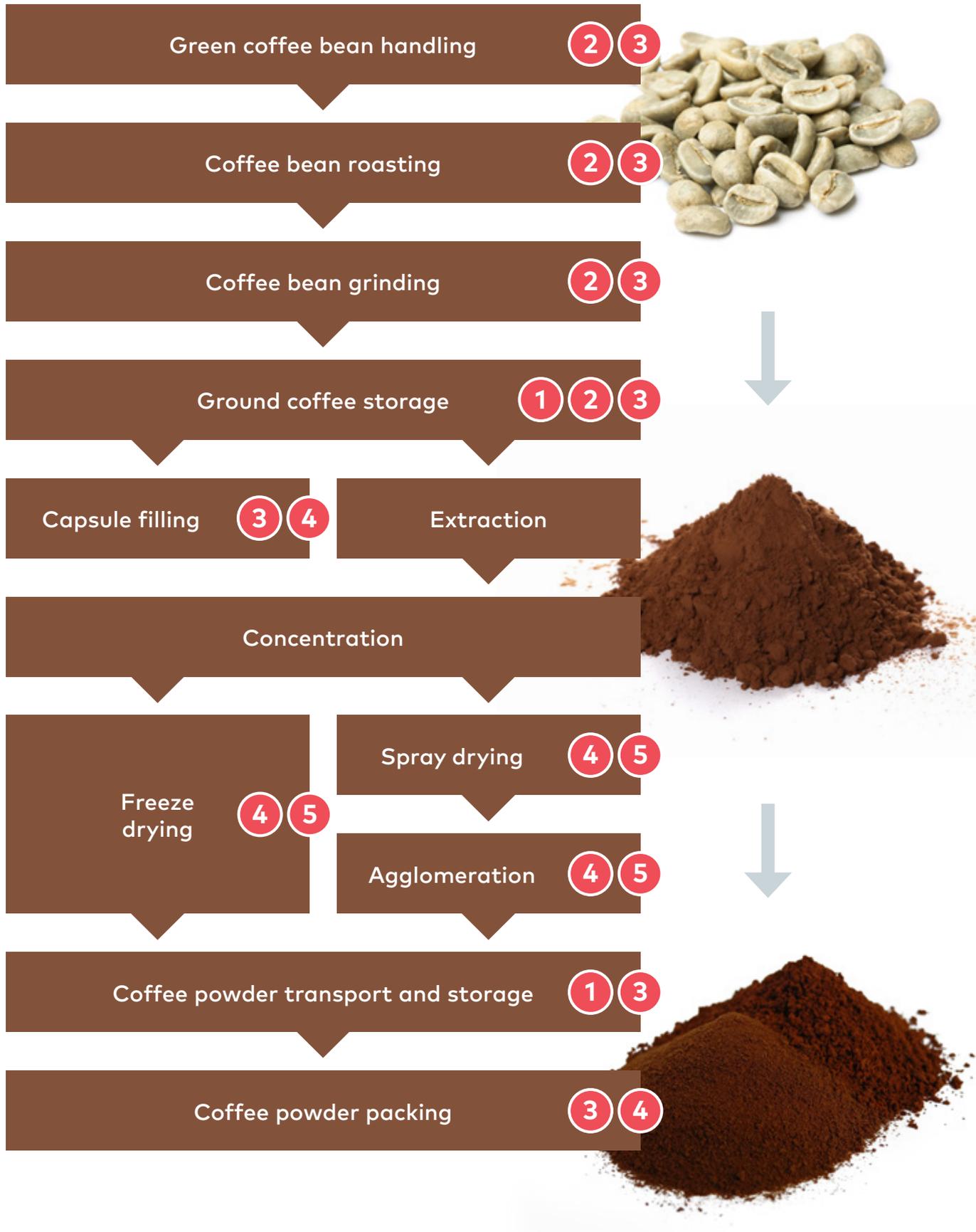
### Did you know.....

Powder loss from spray driers using a conventional cyclone solution is typically in the range of 0,5 to 1,5% of powder production. Simatek bag filter technology can reduce this to less than 5 mg/Nm<sup>3</sup>, 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	mg/Nm <sup>3</sup>	150	200	150	200
Powder loss using bag filter	mg/Nm <sup>3</sup>	5	10	5	10
Operation pr. year	hours	5.000	5.000	5.000	5.000
Powder recovery from the bag filter	kg/year	24.000	60.000	95.000	155.000

# Where Simatek can contribute to your process



# Our product offerings

## Dust collection and aspiration

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### Silo pulse jet filter

Silo filter in a compact, cylindrical design with an efficient pulse-jet cleaning system.

### Special features

- Emission: reduce to less than 5 mg/Nm<sup>3</sup>
- Product contact material: mild steel or optional stainless steel

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### SimSpot spot filter

Pressure shock resistant (PSR) miniature bag filter with a built-in fan that can easily be installed on conveyors and bucket elevators.

### Special Features

- Pressure shock resistance of 0.7 bar (PSR optional)
- Emissions: less than 10 mg/Nm<sup>3</sup>
- Filter size: up to 5,1 m<sup>2</sup> (PSR) and up to 12,6 m<sup>2</sup> (conventional)
- Product contact material: mild steel or optional stainless steel

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### SimPact 4T-R pulse jet filter

Comes with different possible inlet types strategically placed in the construction forms ensures the efficient capture of both coarse and fine particles.

### Special features

- Capacity: up to 130.000 m<sup>3</sup>/h
- Filter size: up to 435 m<sup>2</sup> filter surface
- Filter bag length: up to 8 m
- Emissions: reduce to less than 5 mg/Nm<sup>3</sup>
- Product contact material: mild steel or optional stainless steel

## Process filters

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### SimPact 4T

Comes in a compact and sturdy cylindrical design with efficient down flow filtration, ensuring effective product recovery and emission control.

### Special features

- Capacity: up to 120.000 m<sup>3</sup>/h
- Filter size: up to 960 m<sup>2</sup> filter surface area
- Filter bag length: up to 11 m
- Emissions: reduce to less than 5 mg/Nm<sup>3</sup>
- Product contact material: stainless steel
- Hygienic design compliant to EN1672-2 and EHEDG
- CIP as option

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### SimPulse 3C

This bag filter represents the next generation of pulse-jet filters. It uses a unique high air volume and low pressure jet pulsing technology that ensures a low pressure drop and long lasting filter bag life.

### Special features

- Capacity: up to 210.000 Am<sup>3</sup>/h
  - Filter size: up to 1.700 m<sup>2</sup>
  - Filter bag length: up to 11 m
  - Emissions: reduce to less than 5 mg/Nm<sup>3</sup>
  - Product contact material: stainless steel
  - Hygienic design compliant to EN1672-2 and EHEDG
  - CIP as option with unique inside filter bag CIP
  - Single bag leak detection
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# Simatek service



## **Spare parts**

We stock spare parts for all Simatek pulse-jet filters and filtration systems, including our industrial vacuum cleaning and pneumatic transportation systems.

## **Service and maintenance**

Our skilled and experienced service engineers are available to repair and upkeep your Simatek pulse-jet filters and aspiration systems.

## **Retrofit solutions**

With Simatek retrofit solutions and upgrades, you can improve the performance and life of your bag filters. This can include rebuilding and modifying solutions for systems that originate from other bag filter manufacturers.

## **Bags and cages**

At Simatek, we work with the best available filter bag fabric technology for a wide variety of applications and for filter bags with different dimensions.

# Your partner for emission and air pollution control

Founded in 1981, Simatek is a leading manufacturer of industrial air filtration solutions. Our high-tech products and systems optimise foot-print, 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: A range of sanitary and non-sanitary bag collectors for the processing industry – including process filters with Cleaning in Place (CIP) and super sanitary bag collectors conforming to the 3-A standards and USDA guidelines.
- Air Pollution Control: A wide range of fabric filter technologies that ensures compliance with emission requirements by removing dust and flue gas.

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.

**SIMATEK**  
Filter Technology

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