TECHNOLOGY FOR CLEAN AIR

SPACE MINIMIZING CONCEPT

THE FUTURE OF BAG FILTER TECHNOLOGY IN A VERTICAL DESIGN

SURPRISINGLY SMALL

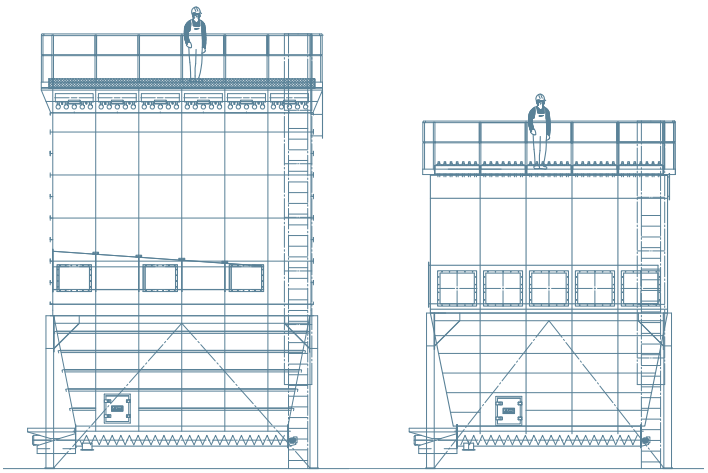
HIGH PERFORMANCE WITH A COMPACT DESIGN

As an international leader in technology, Scheuch GmbH is constantly evolving state-of-the-art products in the area of ventilation and environmental technology. The company, whose headquarters are in Austria, draws its innovative capacity from the experience gained through thousands of filter systems. These are used and installed in an extremely wide range of industries around the world. Taking this knowledge and the experience acquired from a whole host of research projects as a basis, Scheuch has developed a special impuls filter with smc technology (space minimizing concept) offering optimum performance where space is at a premium.

SLIM SMC TECHNOLOGY FOR OPTIMUM RESULTS

The extremely compact filter performs equally as well as a classic round bag filter with a volumetric flow from 6000 Bm³/h. The small power pack can be used in virtually all industrial dedusting. The filter's compact design is particularly useful when it comes to problematic spatial conditions such as limited floor space and a narrow installation height. Not even the tried-and-tested Scheuch impuls filter with round bag geometrics can beat this: the possible filter surface loading, the differential pressures and the use of compressed air are identical.

The continued development of the tried-and-tested Scheuch impuls cleaning system with twin jet nozzle has led to an optimised cleaning effect. The use of compressed air is reduced and the filter bag service life has increased due to the uniform aging.



Using the same filter area, the Scheuch smc technology can save up to 20% of the floor space and up to 40% of the casing height.

FILTERED OUT ADVANTAGES

ADVANCEMENT THROUGH CONTINUOUS DEVELOPMENT

A multitude of test series were conducted during the development of the new smc technology in order to ensure that this new generation of bag filters also has the usual Scheuch high quality and cost-effectiveness.

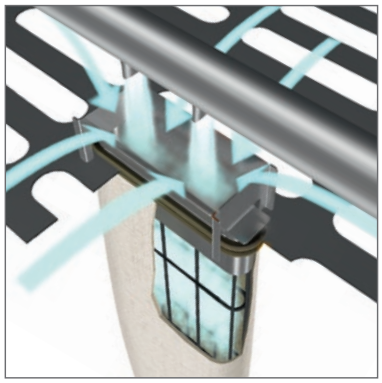
The further development of the tried-and-tested impuls cleaning system, combined with the innovative support cage injector bag system, creates an effective, complete package.

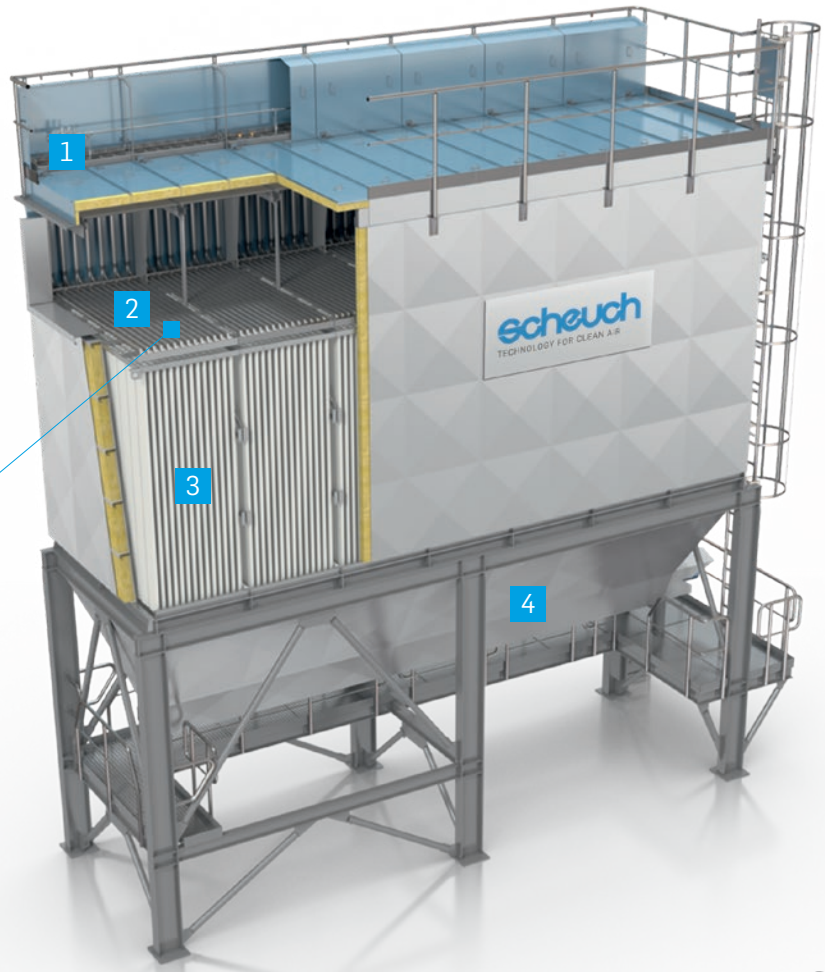
The impuls cleaning system with two-tiered diaphragm valves and integrated pilot valve with a tank-integrated design enables gentle, uniform cleaning through every individual filter bag throughout the entire length of the bag.

The result is a uniform aging of the filter media with a high filter bag service life as well as high operational safety.

The support cage injector bag system with a design suited to industrial use ensures absolute tightness through the use of tried-and-tested snap ring sealing, even with high filter area loads, and thus low dust emissions. The unique aspect of this system is how easy it is to handle as the filter media are being assembled and disassembled – even without tools. Even sensitive filter media can be used without any problems.

SUPPORT CAGE INJECTOR SYSTEM WITH SNAP RING SEALING





1 PNEUMATIC CLEANING SYSTEM INSTALLED ON THE FILTER HEAD

2 JET PIPES IN THE CLEAN GAS CHAMBER

3 FLAT BAG PACKAGE IN VERTICAL DESIGN

4 DUST COLLECTING TROUGH AND HOPPER WITH DISCHARGE SYSTEM

APPLIED EXPERTISE

FLOW OPTIMISATION USING CFD SIMULATIONS

EXTENSIVE RESEARCH

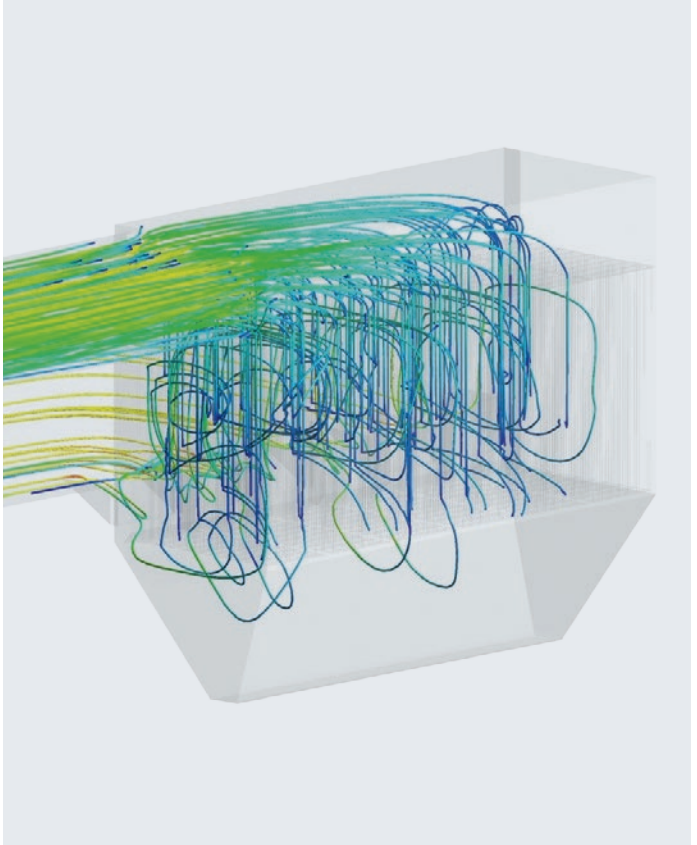
The dust and flow conditions in the filter were perfected through the use of intensive CFD simulations and test series throughout development.

An ideal flow distribution was achieved through the use of newly developed flow geometry. This results in an even load on the individual filter bags and thus long filter bag service life. The flow rates in the filter sump were significantly reduced and the dust pre-separation was therefore improved.

Furthermore, bag damage in the inlet area of the filter is effectively avoided by preventing circulation bypasses or excessive local flow velocities.

IN SHORT:

- Optimised flow geometry
- Even loads for the filter media
- High pre-separation
- Prevention of premature filter bag damage



Optimisation of the dust and flow conditions due to CFD simulations.

DID YOU KNOW THAT...

- the filter helps to save a great deal of space due to its compact design?
- the technology ensures high performance and system availability?
- the high degree of pre-assembly leads to short installation times?
- the filter bag service life is very long?
- the investment costs are low due to the smaller foundation?

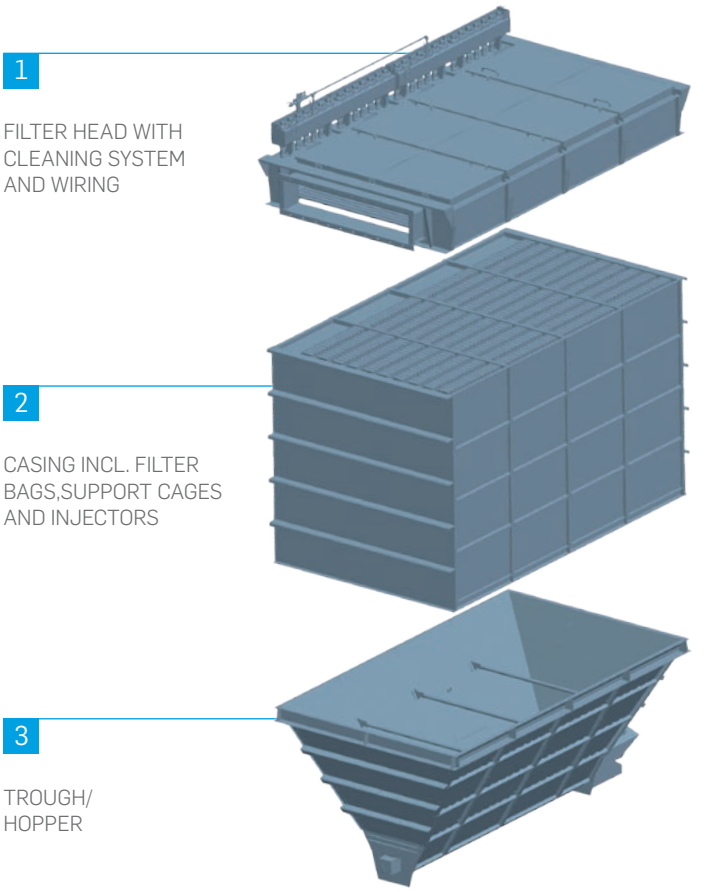
COMPACTLY PRE-ASSEMBLED

FOR QUICK INSTALLATION

The compact nature of the filter with smc technology enables Scheuch to deliver to customers in just a few subassemblies. This high degree of pre-assembly leads to greatly shortened installation times on-site. This creates the ideal conditions to prevent long standstills during ongoing production.

High degree of pre-assembly in few subassemblies.

DELIVERY IN FEW SUBASSEMBLIES:



1

FILTER HEAD WITH CLEANING SYSTEM AND WIRING

2

CASING INCL. FILTER BAGS,SUPPORT CAGES AND INJECTORS

3

TROUGH/ HOPPER

ADVANTAGES OF THE HIGH DEGREE OF PRE-ASSEMBLY:

- Lower space requirements on site
- Short assembly times
- An increase in quality due to assembly during production
- Insulation at the factory
- Delivered with initial supply of bags

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