

scheuch

TECHNOLOGY FOR CLEAN AIR

VÁPNO, CEMENT, EKOLOGIE

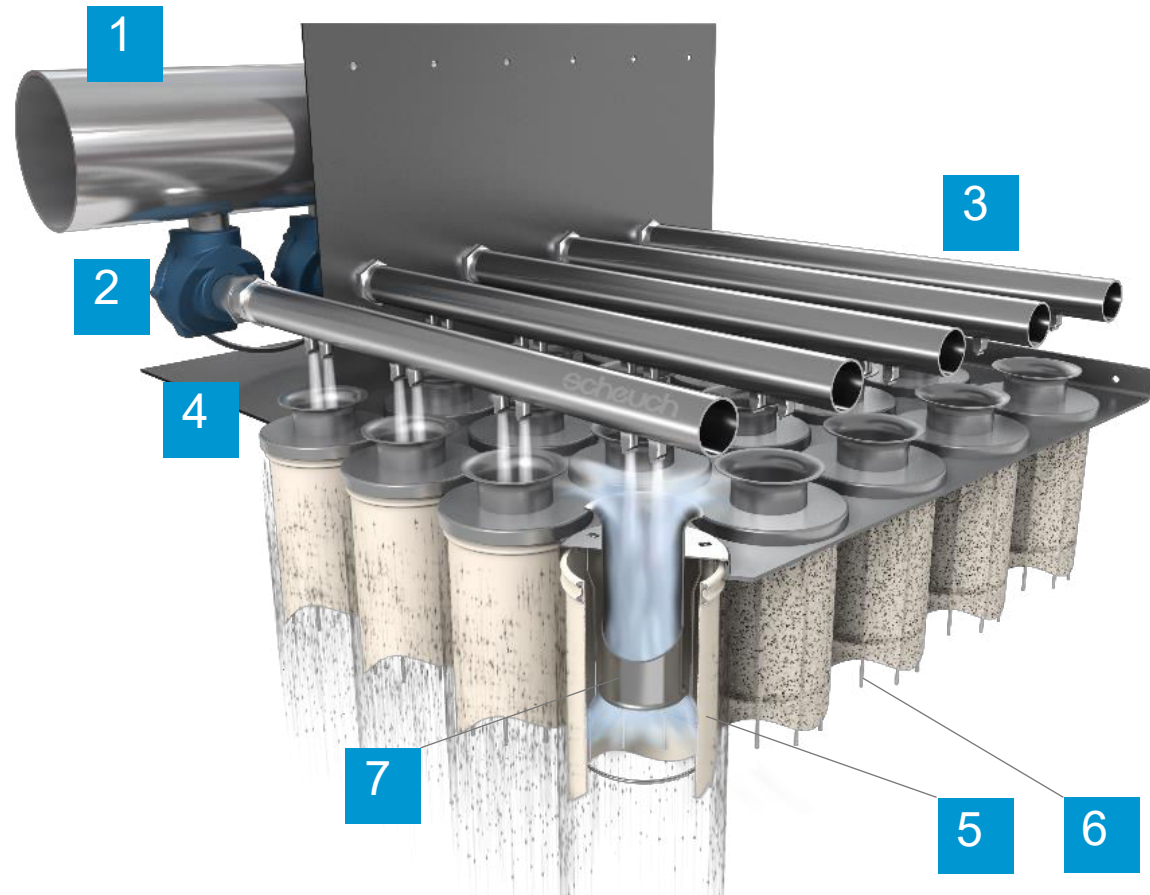
JEZERKA 26. -28. 2018



BAG FILTER COMPONENTS

Main Components

- 1 Compressed air tank
- 2 Membrane-valve
- 3 Jet pipe with twin nozzles
- 4 Tube sheet
- 5 Filter bag
- 6 Supporting cage
- 7 Injector



SCHEUCH *impuls* - Cleaning Essentials:

- **twin nozzles arrangement** (high rate of secondary air)
=> optimum cleaning performance



PULSE JET CLEANING MODES

Online / Offline and EMC Technology

ONLINE

Bags are cleaned in the filtration mode

- constant filter area during operation
- high cleaning intensity required to create „CAN“-velocity
- „CAN“-velocity applies → degrade sediment

OFFLINE

Filter bags are cleaned in no-flow condition

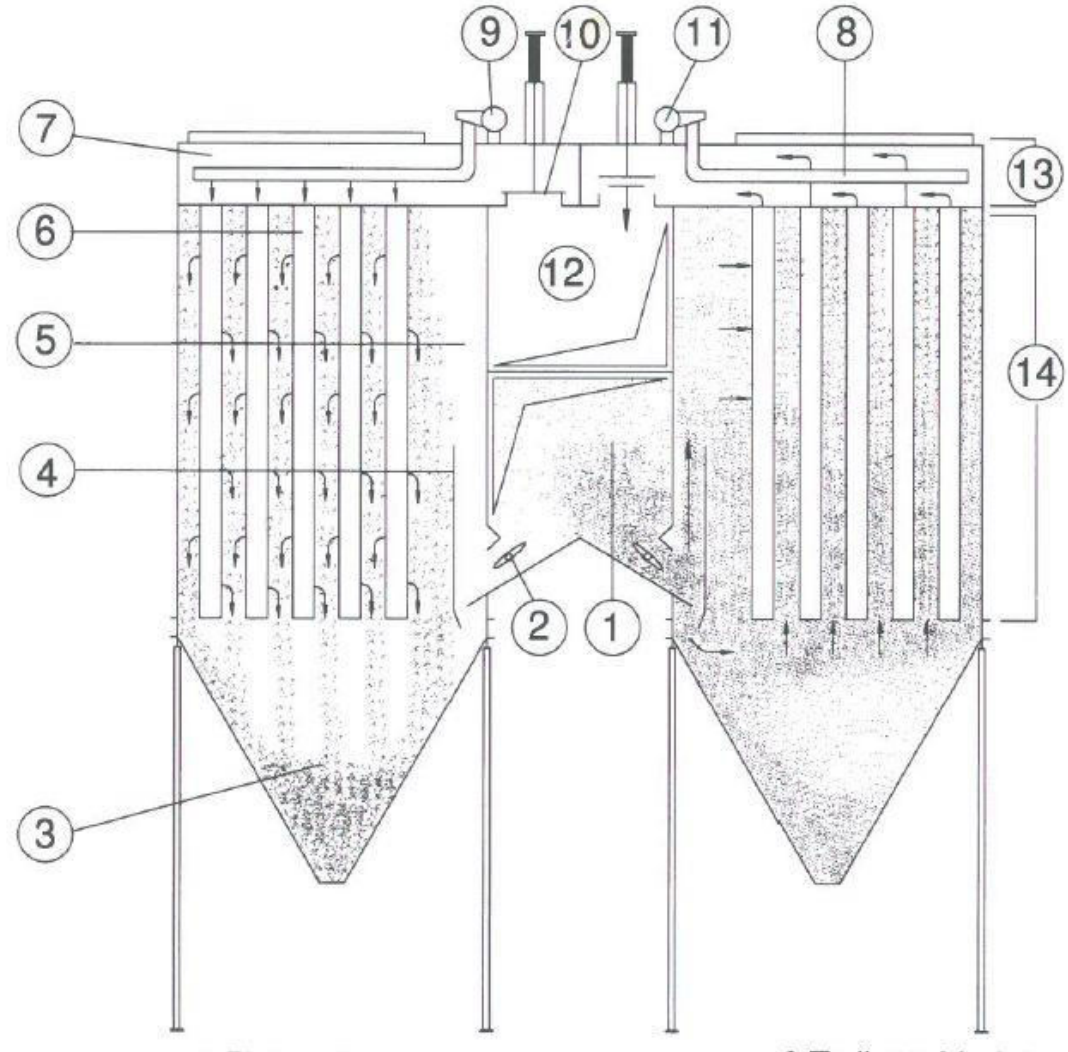
- available filter area varies in operation
- low cleaning intensity required, as clean air is not drawn through the filter
- Zero „CAN“ - velocity → improved sedimentation



Energy Minimizing Concept

Just a few bags are cleaned in no-flow modules

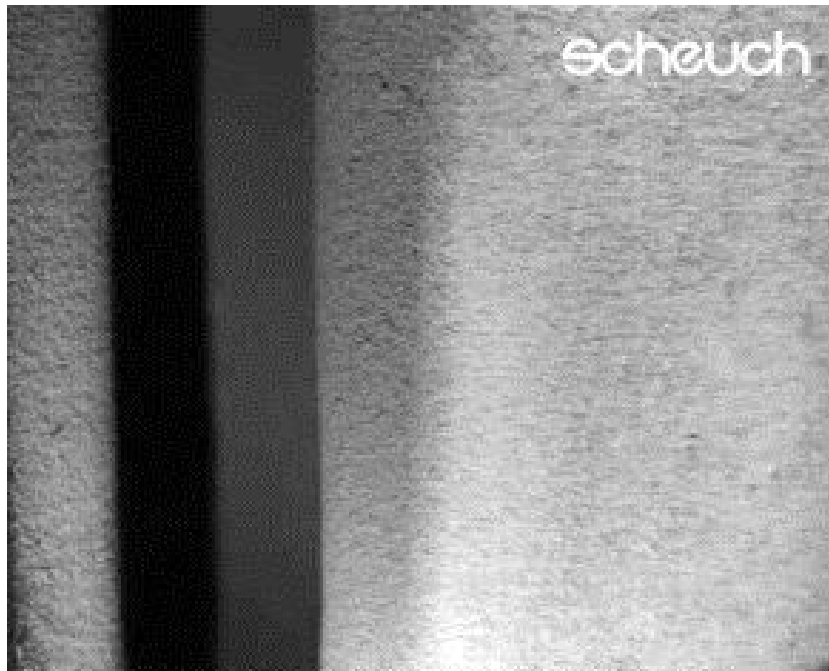
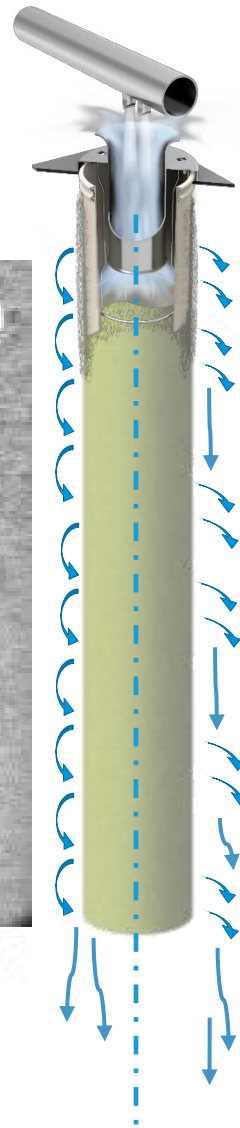
- constant filter area during operation
- low cleaning intensity required, as clean air is not drawn through the filter
- Zero „CAN“ velocity → improved sedimentation of removed dust



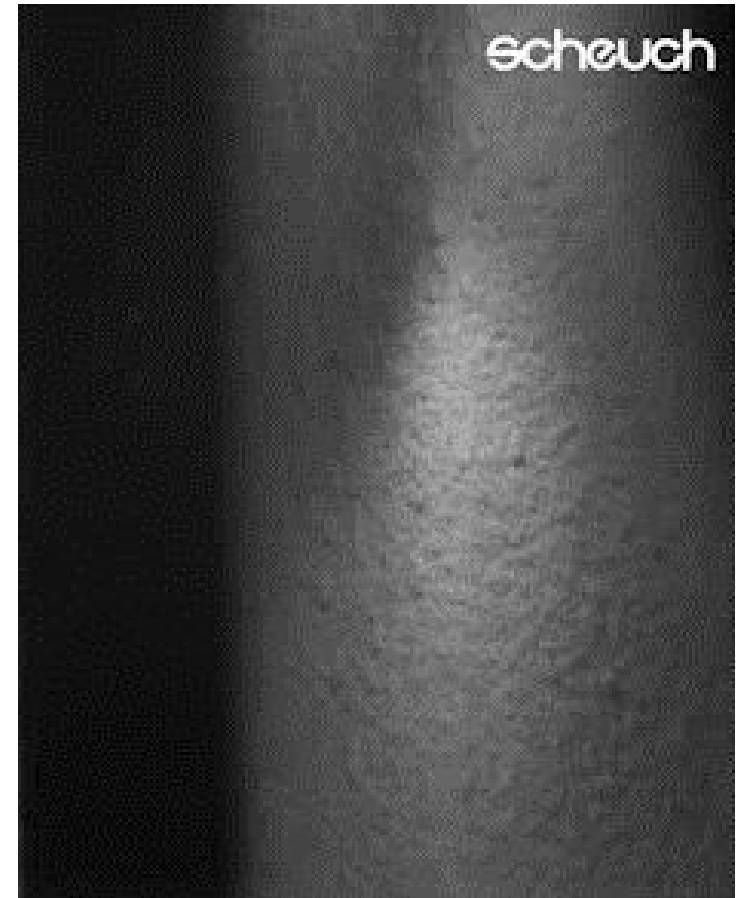
IMPULS – CLEANING SYSTEM

EMC – The Benchmark In Filtration

ONLINE



23.08.01 14:51:29 1820 3758.0l/m³ MOCAM-1000 cam3 500 Hz
Test Plant at Scheuch Technikum II Online 5,0 bar with dust



23.08.01 11:42:54 0787 1623.8l/m³ MOCAM-1000 cam3 500 Hz
Test Plant at Scheuch Technikum II EMC 1,0 bar with dust c2

EMC – BAGFILTER

THE BENCHMARK IN FILTRATION

echeuch
TECHNOLOGY FOR CLEAN AIR



THE SCHEUCH FILTER PLATFORM

Product Overview Filtration => the SMC Filters



Space Minimizing Concept

- Flat bag Filter
- Horizontal and vertical arrangement
- Pre-assembled modules
- Patented filter bag technology

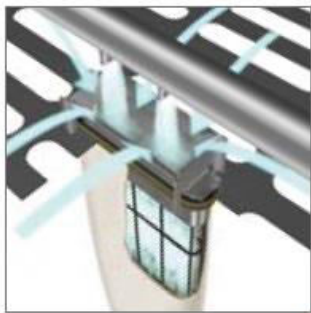


SCHEUCH PULSE-JET FILTER



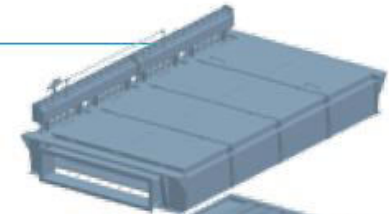
SCHEUCH Bag Filter Type *fi-m - vertical*

PATENTED SUPPORT CAGE
INJECTOR SYSTEM WITH
SNAP RING SEALING

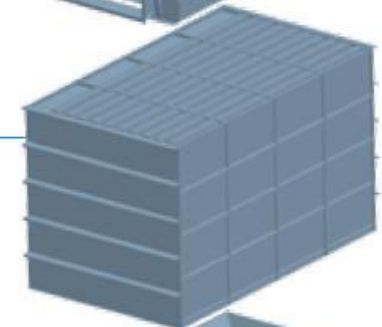


- 1** PNEUMATIC CLEANING SYSTEM
INSTALLED ON THE FILTER HEAD
- 2** JET PIPES IN THE
CLEAN GAS CHAMBER
- 3** FLAT BAG PACKAGE IN
VERTICAL DESIGN
- 4** DUST COLLECTING TROUGH AND
HOPPER WITH DISCHARGE SYSTEM

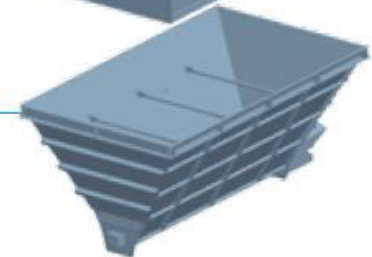
1
FILTER HEAD WITH
CLEANING SYSTEM
AND WIRING



2
CASING INCL. FILTER
BAGS, SUPPORT CAGES
AND INJECTORS



3
TROUGH/
HOPPER



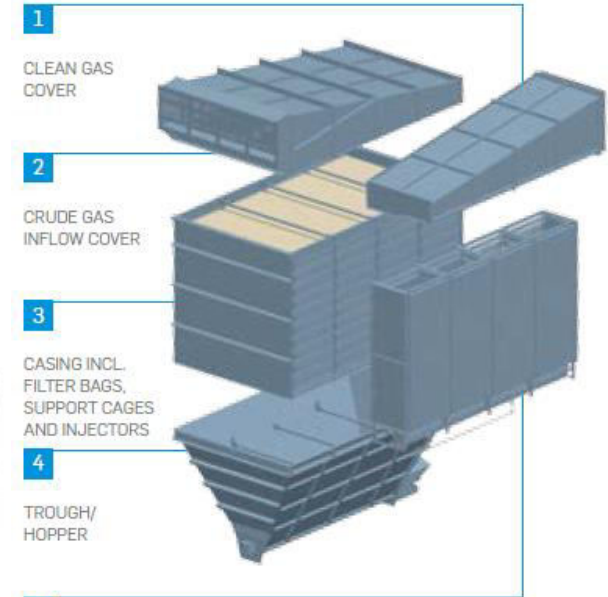
SMC
SPACE MINIMIZING
CONCEPT

SCHEUCH PULSE-JET FILTER

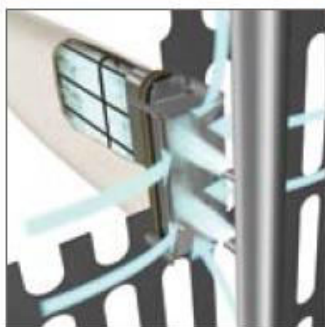


SCHEUCH Bag Filter Type *fi-m - horizontal*

- 1 CRUDE GAS INFLOW COVER WITH FLOW EQUALISER
- 2 CLEAN GAS OUTLET (VIA THE COVER OR THE CLEAN GAS CHAMBER AT THE SIDE)
- 3 FLAT BAG PACKAGE IN HORIZONTAL ARRANGEMENT
- 4 JET PIPES IN THE CLEAN GAS CHAMBER
- 5 PNEUMATIC CLEANING SYSTEM
- 6 DUST COLLECTING TROUGH AND HOPPER WITH DISCHARGE SYSTEM



- 1 CLEAN GAS COVER
- 2 CRUDE GAS INFLOW COVER
- 3 CASING INCL. FILTER BAGS, SUPPORT CAGES AND INJECTORS
- 4 TROUGH/HOPPER
- 5 FILTER HEAD WITH CLEANING SYSTEM AND WIRING

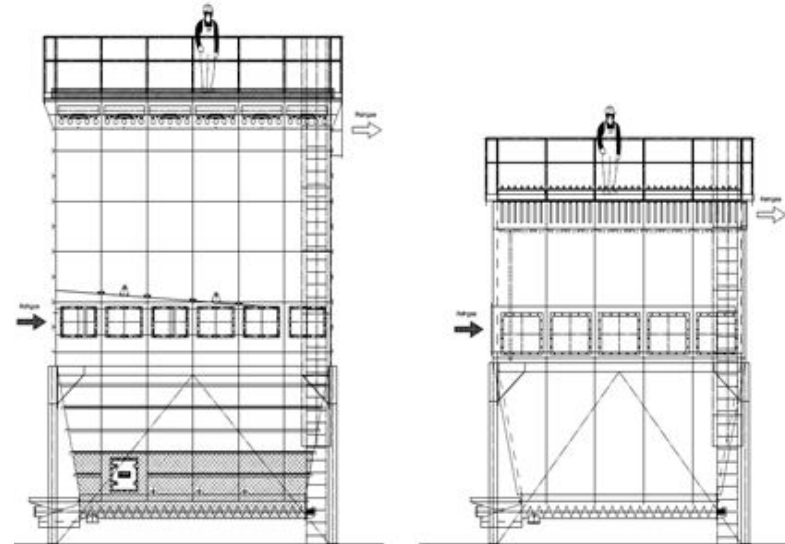


PATENTED SUPPORT CAGE INJECTOR SYSTEM WITH SNAP RING SEALING

SMC
SPACE MINIMIZING
CONCEPT

SCHEUCH Bag Filter Type *fi-m - vertical*

- Reduction in bag house volume and height by the factor of 2
- Shipment in pre-assembled main components:
 - filter housing (incl. filter bags)
 - ash hopper
 - filter cleaning system



SCHEUCH PULSE-JET FILTER



SCHEUCH Bag Filter Type *fi-m*

- Single or multi compartment filter in welded design
- Oval shaped filter bags
- Bag dimensions 47 x 200mm correlates with 150mm \varnothing
- Length of filter bags:
 - 2.890 mm vertical
 - 2.730 mm horizontal
- Indoor + outdoor installation
- Snapping-Sealing
- 100% leak-proof
Snapping is pressed against the tube sheet with the help of the injector



SCHEUCH PULSE-JET FILTER

Filter Cages for Filter Type fi-m

- Solid industrial design
- Design with 18 longitudinal rods available for use of membrane type filter bags



SCHEUCH PULSE-JET FILTER

*Filter Cleaning System – SCHEUCH Bag Filter Type **fi-m***

- Tank-integrated diaphragm valves high efficiency / low noise emission
- Solid one piece diaphragm without spring
- Easy coil replacement by twist-on-coils
- Pre-assembled assembly units
- Pre-insulated



SCHEUCH PULSE-JET FILTER

*References – SCHEUCH Bag Filter Type **fi-m***

RHI Normag A.S. - Norwegen



THE SCHEUCH FILTER PLATFORM

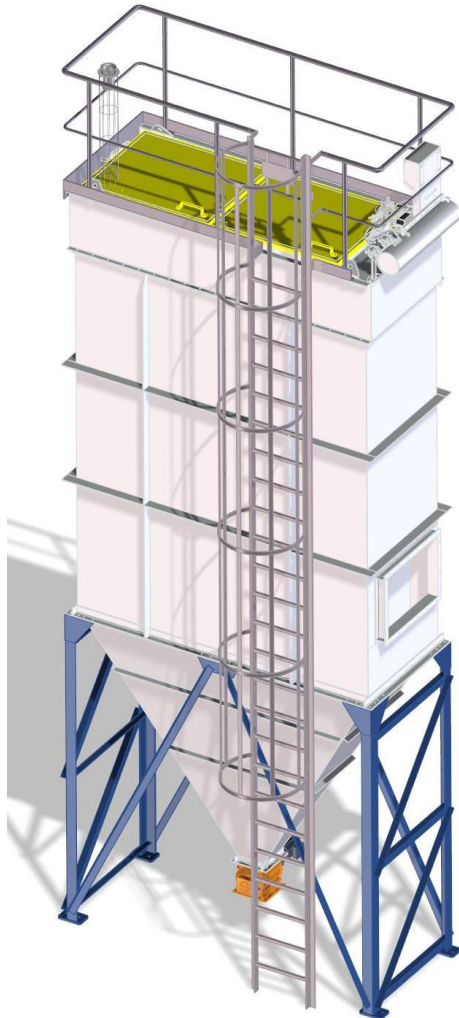
Product Overview Filtration – the FISN Series



SFD / FISN **impuls**

- Bag diameter 165mm
- Standard bag length up to 5 m
- wide range of applications
- EX proofed types available

FISN – FILTER SERIES

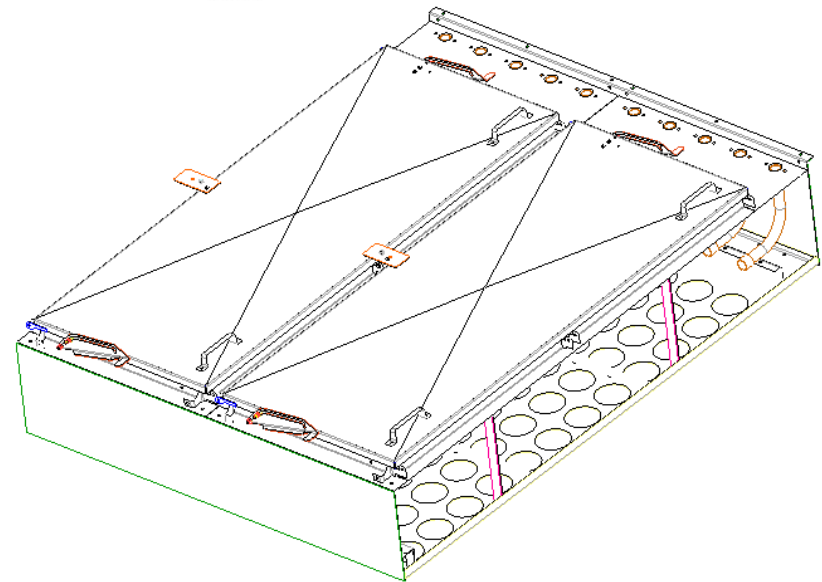
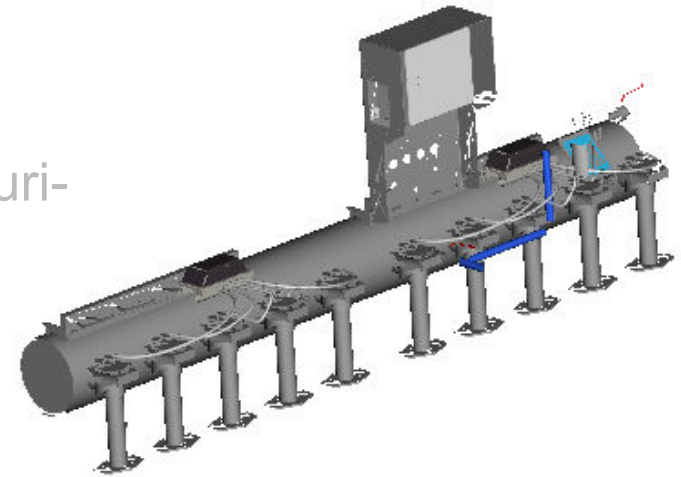
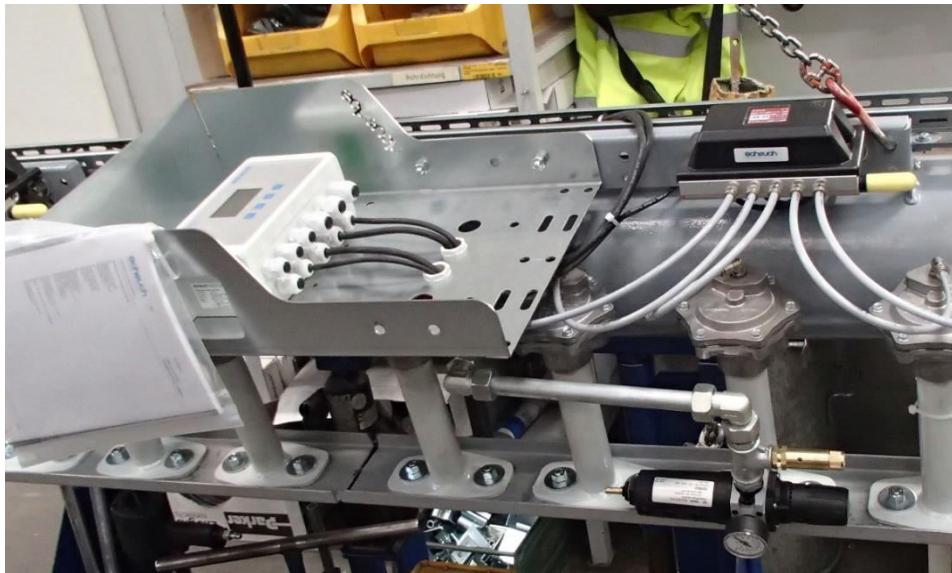


- Based on the traditional SFD platform but **optimized for local fabrication**
- Bags $d=165\text{mm}$; 2250mm - 5000mm bag length
- Scheuch Impuls cleaning system (compressed air header outside)
- Aiflows 2.000 up to 75.000 m^3/h
- Application: General Dedusting $<50\text{mbar}$ $<80^\circ\text{C}$

FISN – FILTER SERIES

Minimum IMPORT scope:

- Compressed air header with **pre-wired** cleaning controller incl. jetpipes and venturi-nozzles, filterbags and supporting cages



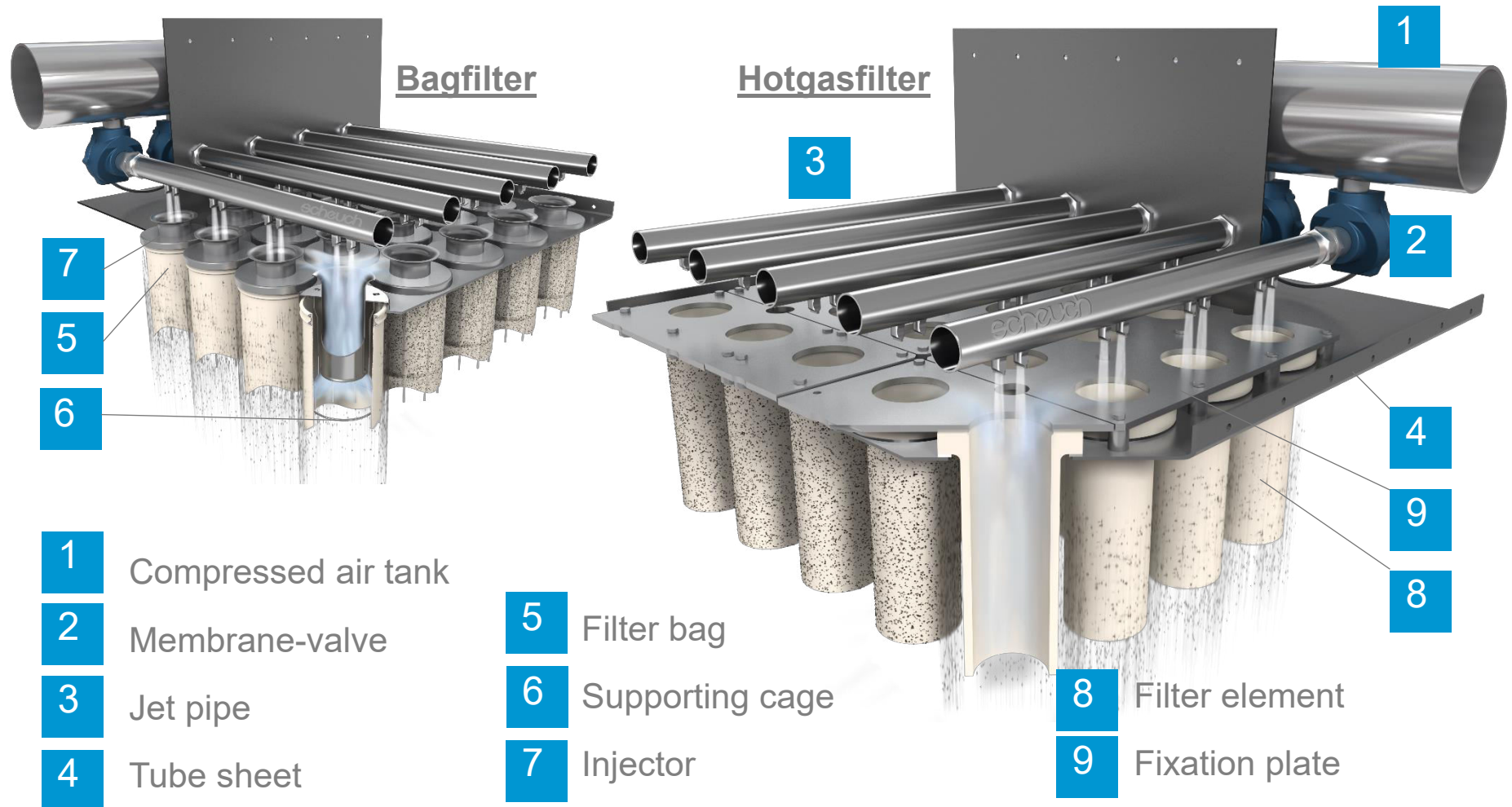
DEVELOPMENT HOT GAS FILTER



1st Discussions

HOT GAS FILTRATION

Cleaning Technology



Advantages and Application Areas

Advantages:

- High temperature – resistance of the filter elements
- Efficient cleaning based on proven:
impuls - Cleaning System
emc - Filter Technology
- Lowest differential pressure
- High dust loads possible
- High filtration efficiency
- Long lifetime of the filter elements
- Compact design at highest availability
- Combined mission abatement in one unit:
dedust - desox - denox



Application Areas:

Mercury reduction

Cost-efficient and reliable heat recovery possible

Possible catalytic denitrification

Hot Gas Filter as KEY PART

Client:

Schwenk Zement KG

Place of installation:

Allmendingen

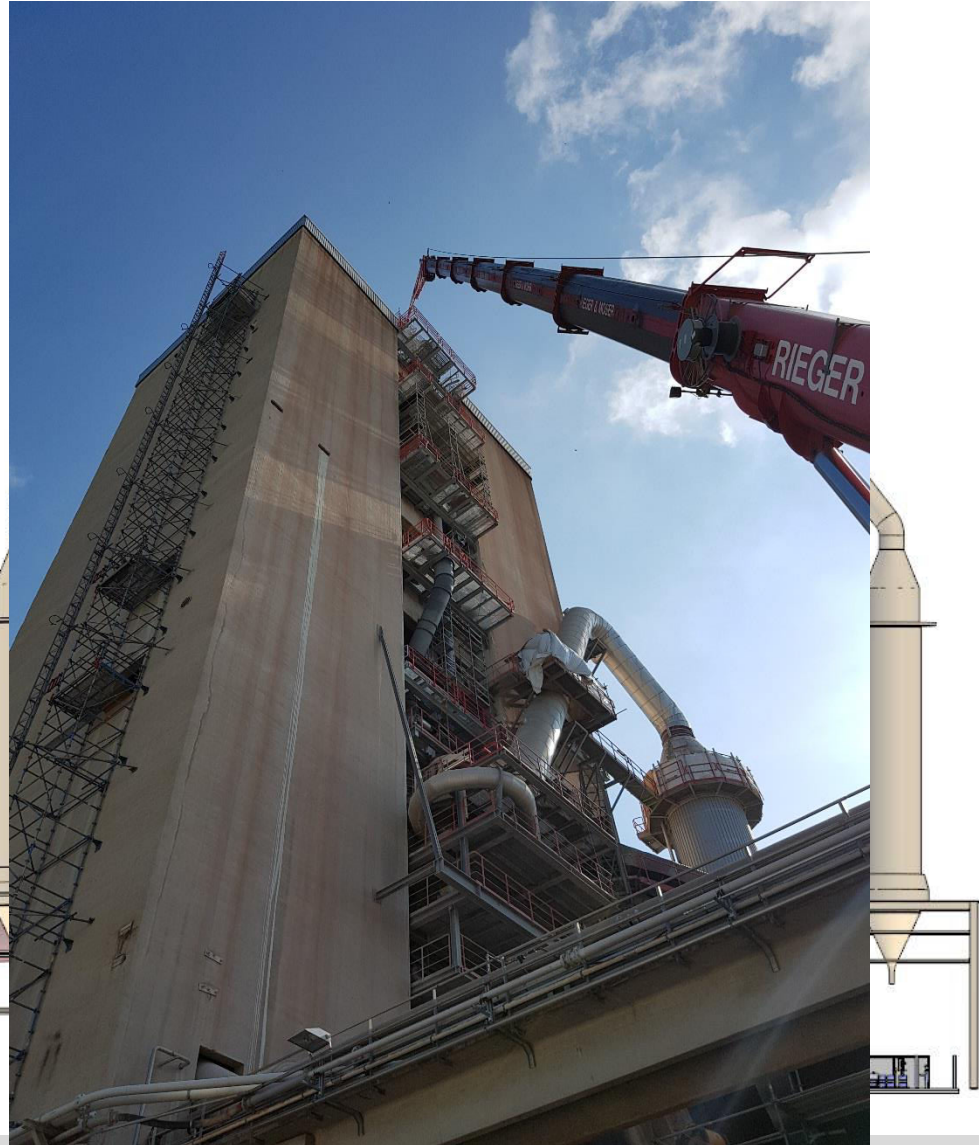
Germany

Start-Up:

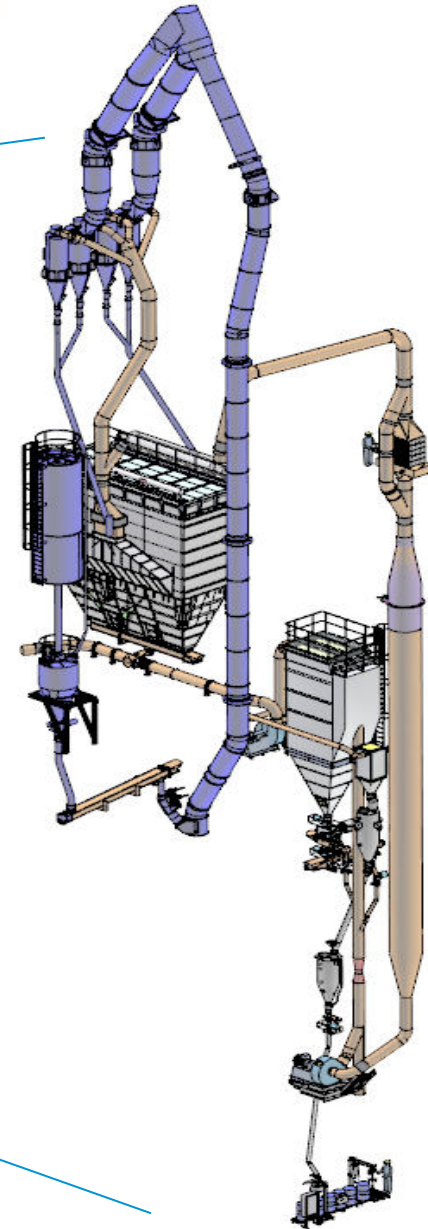
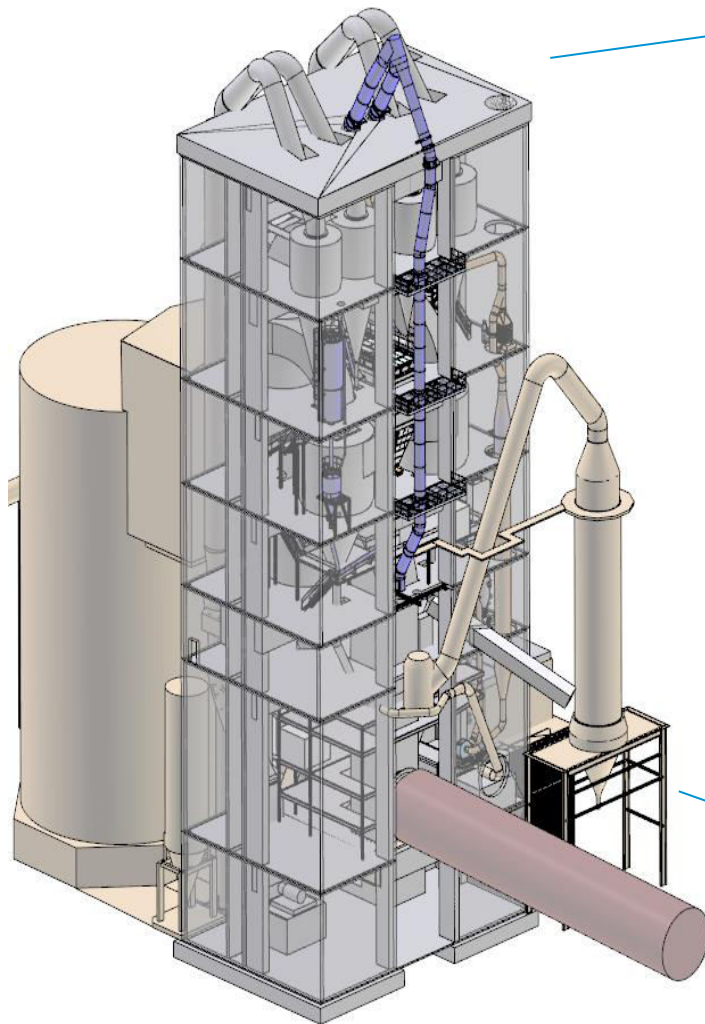
October 2017 STAND BY NOW

Highlights:

Integration of the system within the preheater tower

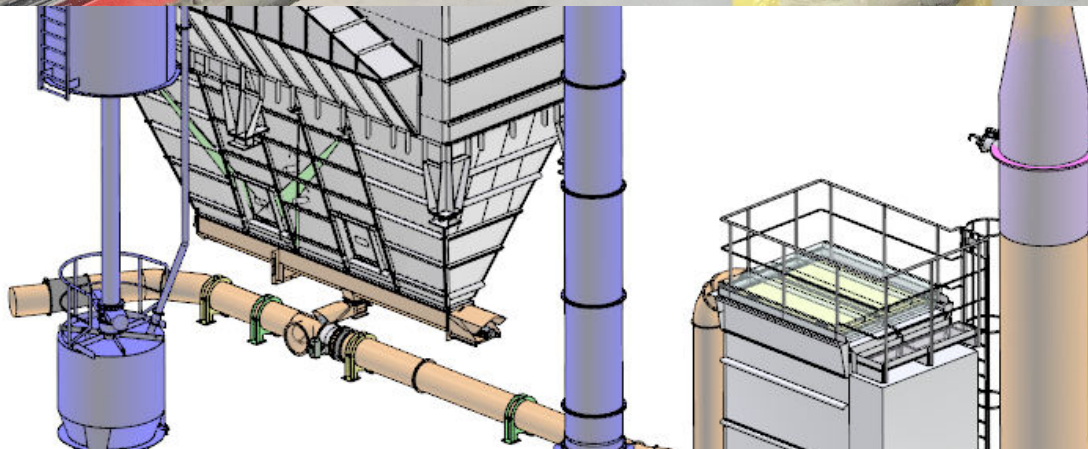


Integration of xmercury within the preheater tower





Hot Gas Filter as KEY PART





**WE CREATE
TECHNOLOGY
FOR CLEAN AIR**

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