

# SEKA



## WET CONDENSATION ELECTROSTATIC PRECIPITATOR FOR CLEANING DRYER EXHAUST GASES



### The advantages:

#### High filtration efficiency:

- Excellent dust and aerosol filtration (blue haze)
- Good separation of organic contents

#### Low operating costs:

- Low maintenance and cleaning costs because of the self-cleaning effect of the condensation
- Little or no fresh water consumption because of system-internal recondensation from the exhaust gas
- Integrated treatment of process water
- Low pressure losses through "bottom up" air flow

#### High availability:

- Redundant, two-stage design
- Proven system used in actual practice

#### Performance range:

approx. 100,000 to 1,000,000 Am<sup>3</sup>/h

#### Plume removal of steam plume using pre-warmed air from the condensation steps

SEKA is a two-stage wet electrostatic precipitator in which the collecting surfaces are implemented as a bundled pipe design. This process is primarily used for applications in the wood based panel industry (particle board, OSB and MDF industries), plywood industry, insulating materials industry and in the pellet industry.

## Quench

In order to guarantee the optimal filtration performance and safety levels, the exhaust gas is injected with circulating water before entering the filter. This saturates the gas with moisture and cools it to the cooling limit temperature.

## Scrubber

Water-soluble substances as well as larger dust particles are separated out in the scrubber. In addition, the scrubber ensures a uniform flow distribution across the entire filter cross-section to provide for optimal filtration conditions in the wet electrostatic precipitator.

## Wet condensation electrostatic precipitator

Fine dust particles and aerosols (blue haze) are separated in the two-stage electrostatic precipitator, which is implemented using a bundled-pipe design. At the same time, a crosscurrent stream of cool air is fed through the pipe bundle. This creates a thin condensation film on the inside of the pipes that prevents dirt deposits. This keeps the pipes as clean as possible.

In addition, the collecting surfaces are periodically cleaned. During this process, one of the two stages is always in operation, ensuring filtration during the entire operating period.

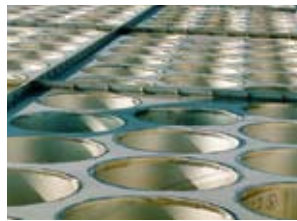
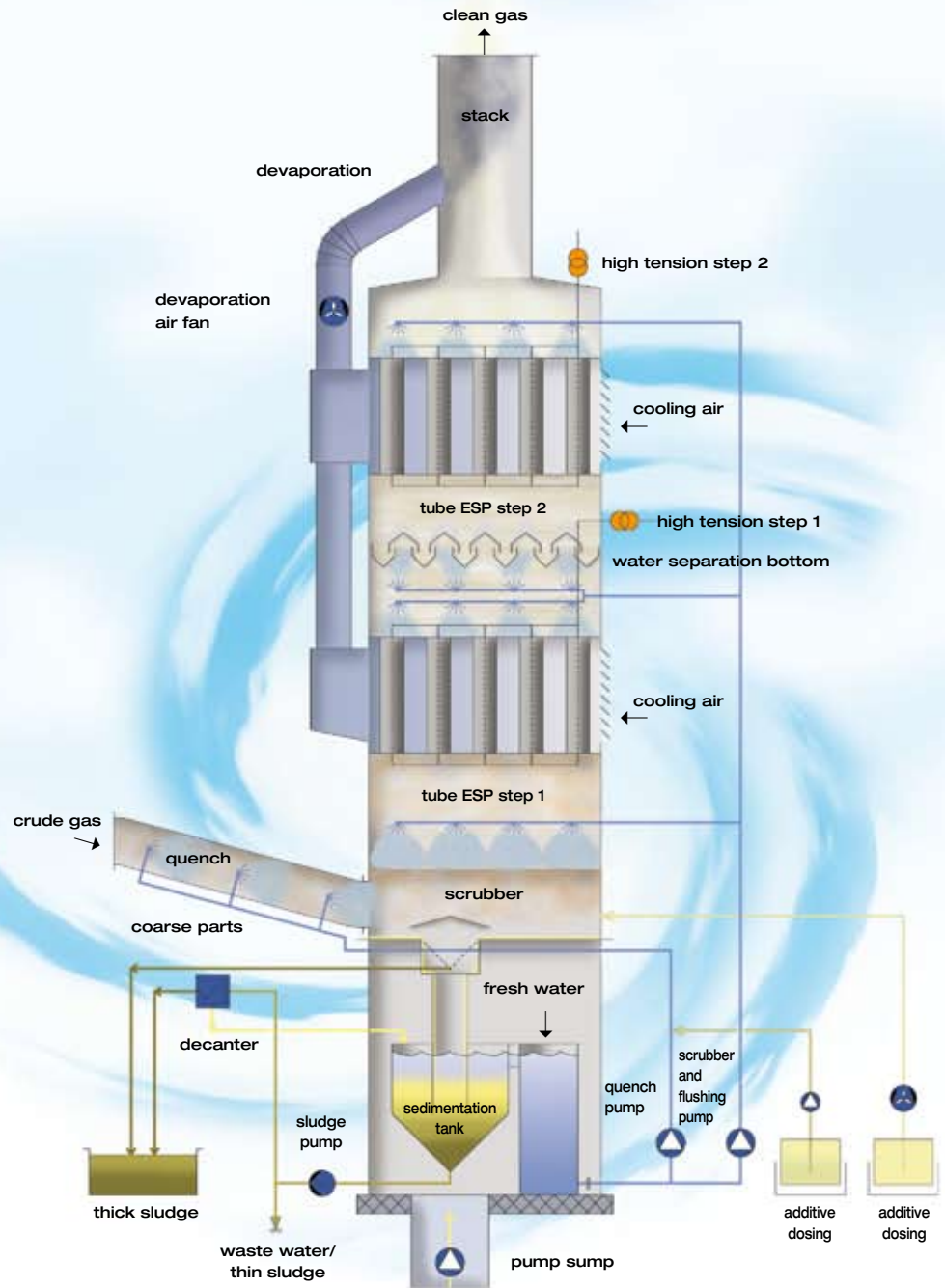
## Plume removal

The steam plume is almost completely removed by mixing the gas prior to clean gas discharge with the heated cool air from the pipe bundles.

## Water treatment

Besides the efficient cleaning of the exhaust air, we also emphasise the treatment of process water that has become enriched with solid matter and contaminants. Materials separated from the exhaust air into the process water are removed using a combination of sedimentation and a centrifuge, whereby additives and the exfiltration of separated materials optimise this process.

# THE PROCESS SEKA



**scheuch**  
TECHNOLOGY FOR CLEAN AIR

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