

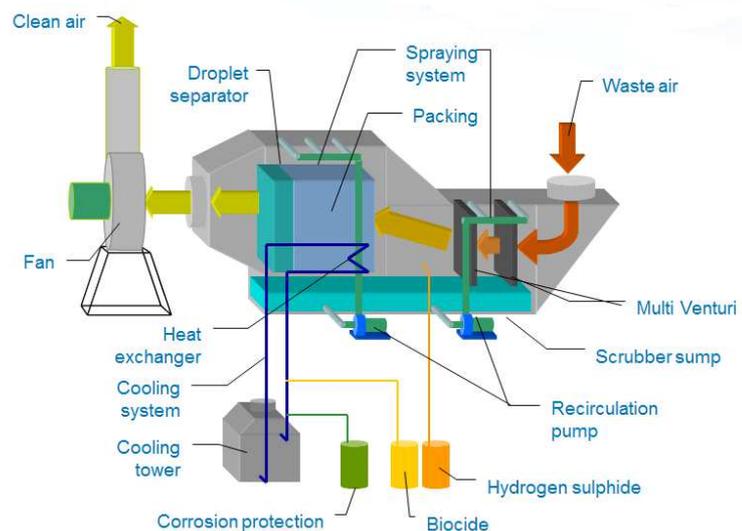


Multi-Venturi Scrubber

More and more dusty emissions from humid processes turn into waste air streams which have to be treated before being released to the atmosphere. Not only because of the particle emission itself but also due to the odours contained. The adherence of the strong-smelling compounds to the particles in humid and often hot waste air flow leads to an increased perception of odours in the vicinity. THOLANDER Environmental Engineering has developed a compact system especially for this waste air problem, which is based on a technology that has been used successfully in similar cases for years.

Functional Principle

The principle of the multi-venturi scrubber is to conduct the waste air through easy-to-clean separation elements in order to increase the relative speed between gas- and water stage. The separation elements are permanently sprayed with plenty of water in order to retain the dust and avoid sediments on the elements. The washed-out contaminants are suspended in the scrubbing liquid and drained out of the system. A drop separator prevents entrainment of scrubbing liquid drops into subsequent systems. Then the waste air passes an unregulated filling material package according to the cross-flow principle. This means, the horizontally conducted air "crosses" the scrubbing liquid which is trickling from the top to the bottom. Due to the large specific surface of the filling material and the constantly regenerating drops an ideal material exchange from the gas- to the liquid stage is guaranteed. Combined with a cooling tower this system is able to effectively treat hot waste air, e.g. from dehydrators. By adding chemicals the pH-value of the scrubbing liquid can be regulated if needed in order to increase the separation performance of gaseous contaminants.



Characteristics

- Horizontal air flow
- Separation of humid dust
- Low risk of clogging
- High flexibility at fluctuating raw gas contamination
- Low space requirements / compact design
- Low pressure loss
- Corrosion- and weather resistance
- Clear and easy-to-maintain operation panel
- Also suitable for hot waste air

Application Examples

- Dehydration processes
- Composting
- Mechanic-biological waste treatment
- Chemical industry
- Food industry
- Tobacco treatment

