

PACKED BED SCRUBBER - ODOR REMOVAL

Ammonia NH₃, Hydrogen Sulfide H₂S

The collection and processing of sewage and industrial waste water is often a source of unpleasant odors mainly ammonia (NH₃) and Hydrogen sulfide (H₂S). These odors come from screening unit, sand/grit removal unit, pump station and sludge dewatering unit. **enki's** two stage counter-flow vertical Packed Bed Scrubber removes these odors.



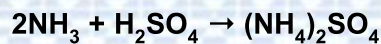
Application

- Wastewater Treatment Plant
- Chemical Industry
- Food Industry
- Leather Industry
- Metal Industry

Standard Equipment

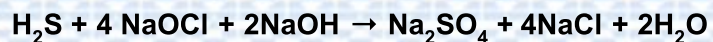
- PP Scrubber
- PP packing
- SS Circulation Pump
- Fan
- PN10/16 PVC Piping
- Electric 400 V 3 PH 50 Hz
- Electric Control Panel
- PLC Control
- Level Switch
- Electric Actuated Valve

The first packed tower uses aqueous sulfuric acid (H₂SO₄) solution to remove ammonia (NH₃) according to the below reaction:



Ammonium sulfate salt [(NH₄)₂SO₄], is soluble and non-volatile and it is easily removed by the blowdown.

In the second stage are used sodium hydroxide (NaOH) and sodium hypochlorite (NaOCl) solution. NaOCl oxidizes the hydrogen sulfide. The complete reaction is given below:



Na₂SO₄ and NaCl are removed by the blowdown. The efficiency for removal of NH₃ and H₂S is greater than 99%.

Optional Equipment

- FRP Scrubber
- Plastic Circulation Pump
- Flowmeter
- Steel structure
- Gas Analyzer
- Operator Panel
- Pneumatic Valve

