John Cockerill **Europe Environnement**



Physical-chemical packing solution Packed gas scrubber LRV & LRH

The packed scrubber is a physical-chemical method for dissolving and neutralizing pollutants in a gas scrubbing liquid.

This technology is particularly suitable for treating industrial gaseous emissions. Packed scrubbers separate harmful or odorous components. The gaseous emissions are put in contact with a scrubbing liquid to separate the undesirable compounds from the gas and absorb them into the liquid.

The packing allows the exchange surface between the liquid and pollutants to be increased. The scrubbing liquid trickles over the hydrophilic parts of the packing in order to create the liquid/gas interface.

This process requires the use of chemical reagents adapted to the specificities of the treated effluents. The operating conditions are very flexible: batch operation, high concentrations of pollutants,

This type of treatment is recommended for installations requiring a high purification efficiency. It is also very effective for the treatment of odours.

KEY APPLICATIONS

Chemistry, Metallurgy, Waste water treatment plants, Composting centres, etc.

Flows processed up to 130,000 m³/h efficiency greater than 99%

Constructed from PPH or HDPE suitable for aggressive and corrosive compounds

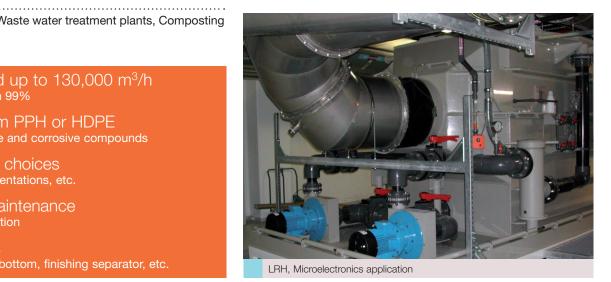
Several possible choices of sizes, materials, orientations, etc.

Requires little maintenance fully automated operation

Possible options

lined pumps, sloping bottom, finishing separator, etc.





Operation

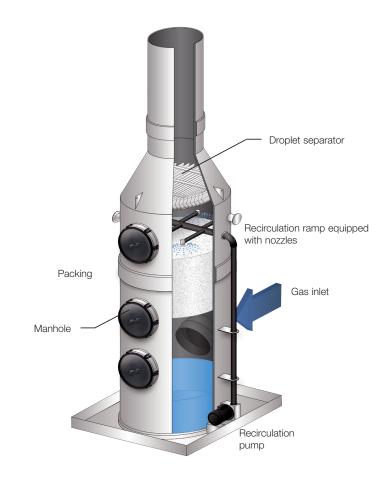
When pollutants pass against the current with the aqueous scrubbing solution, the pollutants are transferred from the gas phase to the liquid phase where they can be neutralized (acid-base or redox chemical reaction) by the reagent injection, selected according to the compounds to be treated (soda, bleach, sulphuric acid etc.).

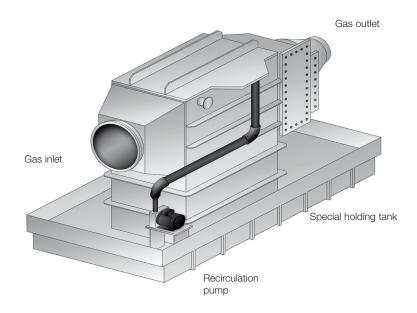
The spray nozzles or the hydraulic valves, placed at the top of the scrubber, distribute the scrubbing liquid over the packing. It flows by gravity forming a film with a large contact surface on the packing.

To avoid saturation of the scrubbing liquid, it must be periodically deconcentrated.

The scrubbers are equipped with a final separation stage that stops the droplets from being carried out with the gas.

- Vertical version (LRV): minimal footprint
- Horizontal version (LRH): reduced vertical space required





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