UASB

Energy production from wastewater

Colsen

water, energy & environment

UASB

Application

Wastewater with high organic pollution is best treated in an anaerobic wastewater treatment system. Anaerobic treatment has numerous advantages over aerobic treatment for such wastewaters, creating a sustainable and economic viable wastewater treatment plant.

The UASB technology, precisely designed for your specific needs, is Colsen's solution for anaerobic wastewater treatment. With its robustness, low maintenance and high performance Colsen's UASB technology has multiple references in food and beverage industries such as:

- Potato and vegetable processing industry
- Slaughterhouses
- Dairy industry
- Sugar and alcohol industry
- Breweries

Also non-food industries producing organic polluted wastewater have benefited from Colsen's UASB technology, e.g.:

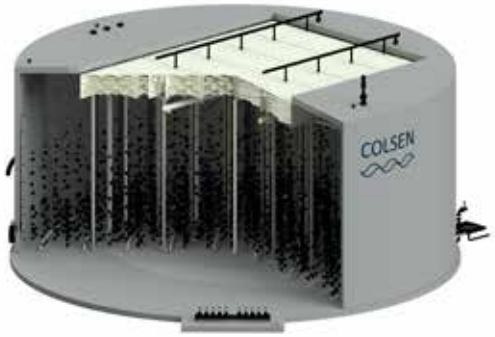
- Paper and pulp industry
- Textile industry

References

Colsen designed, built and started-up UASB's in a wide variety of sectors all over the world. Some recent flagship projects are:

- **Vion Foods – Boxtel, the Netherlands**
  Meat processing industry
- **Pizzoli – San Pietro in Casale, Italy**
  Potato processing industry
- **Grifols – Barcelona, Spain**
  Pharmaceutical industry
- **Cargill – Bergen op Zoom, the Netherlands**
  Starch industry

Process



In the Upflow Anaerobic Sludge Blanket (UASB) reactor highly organic polluted wastewater is treated in the absence of oxygen to produce biogas, thus generating green energy in addition to saving aeration energy in the downstream aerobic treatment. Thanks to Colsen's carefully designed distribution system, the wastewater is divided evenly over the surface. The dense granular sludge bed ensures a compact reactor thanks to the Colsen designed three phase separators.

Result

- Proven reliability and robustness
- In-house technology including optimized design of distribution system and three phase separators
- Compact tailor-made design
- High energy yields from biogas production
- Substantial savings in operational costs

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