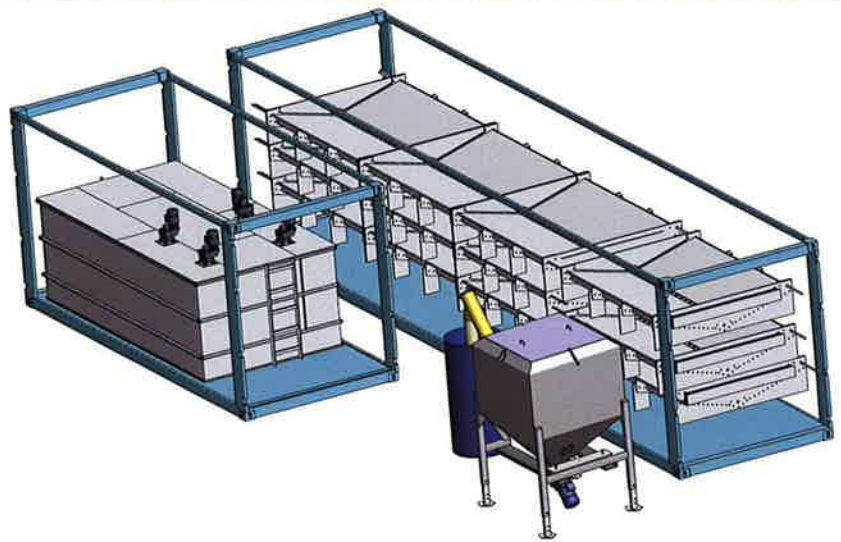


Multi Stripper

A high-tech Multi Stripper for the purification of aggressive flue gas condensate produced by combined heat and power plants, and polluted process water from other industrial processes.



ABOUT PURETEQ

PureteQ is an engineering company that specializes in the development, installation, startup and commissioning of patented high-tech process plants. We solve environmental issues for our customers in the on and offshore industries, including the maritime sector. We install systems that transform liquid hazardous waste and industrial by-products into sustainable, clean energy, we construct technologies that reduce or eliminate combustion and incineration-related issues such as systems for treatment of flue gas, exhaust gas and process water, and we provide heat recovery systems for flue gas emissions. PureteQ is a subsidiary of the Dansk Synergi A/S conglomerate, with headquarters, production facilities and test center located in the city of Svendborg.

PureteQ has developed, manufactured and patented a unique Multi Stripper that purifies polluted water and minimizes the consumption of potable water in industrial processes. Polluted water typically contains a variety of chemical substances, such as heavy metals, salt, suspended substances and fly ash, as well as a range of organic components like oil, PAH, formaldehyde.

All PureteQ Multi Stripper components that come into contact with liquids are constructed from composite materials to withstand long-term exposure to organic and inorganic acids, bases, chlorides and other corrosive agents.

The purification process

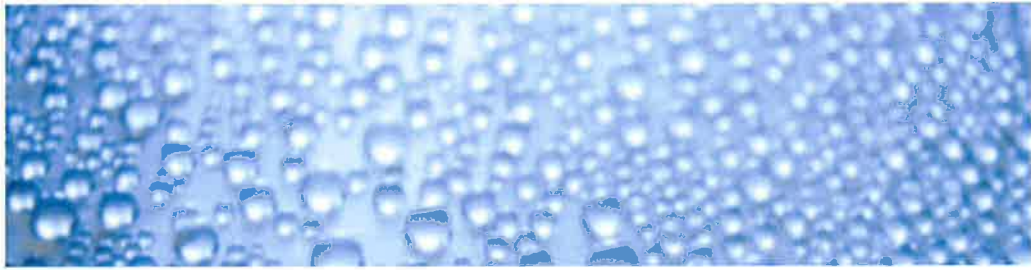
The purification process uses natural agents, rather than expensive, environmentally hazardous chemicals or flocculants. In our patented process, dissolved lime and water are mixed with flue gas to produce ultra fine particles. The particles adsorb the impurities to form agglomerates that are sedimented out as a water-insoluble sludge. The sludge is then separated out using a decanter or PureteQ's new patented particle separator. After drip-drying, the sludge concentrate (typically with a dry matter of greater than 60%) is sent for recycling or to an approved waste disposal site. The scrubbed water can thereafter be released into the drainage network without risk of pollution from heavy metals.

PureteQ is also working on the development of new water refinement

We transform environmental issues into sustainable solutions

PureteQ

Multi Stripper



technologies. We aim to lighten the burden on biological water treatment plants, reduce discharge-related taxes and furthermore make use of water as a valuable resource. It's about the production of technical water and techniques for the reduction of nitrogen (Total N).

A PureteQ Multi Stripper is a robust and environmentally friendly solution. Operating costs are low, as the only consumable is mineralized lime. Lime consumption is typically 2 - 3 kg per 1,000 liters of purified water.

Legal compliance

Before being released into the drainage network, Danish legislation requires that process water, including flue gas condensate, must be purified and free from poisonous heavy metals such as cadmium. Latest research shows that many of these metals build up within the food chain to form a bioaccumulative substance with neurotoxin-like properties. Today, it is illegal to release inadequately purified process water containing substances such as cadmium into the drainage network.

Design parameters

Featuring a modular design, the PureteQ Multi Stripper meets your specific requirements as well as possibilities for expanding to future needs. We offer processing capacities from 500 to 10,000 l/h per module. The system is fitted with a state of the art HMI system with soft touch panels. It can either be integrated into your SRO system or operate stand-alone. The HMI can be accessed from any smartphone, tablet or computer. Our systems can also be manufactured to meet local regulations in your specific region.

Typical figures after purification of flue gas condensate using Multi Stripper.

Heavy metal content (AT13-11263)	Heavy metals after purification using Multi Stripper	Limits for release to drainage network	Limits for heavy metals in potable water	Other parameters after purification using Multi Stripper	After purification using Multi Stripper
Lead	0.24 µg/l	≤ 100 µg/l	≤ 10 µg/l	Formaldehyde	< 0.1 mg/l
Cadmium	0,006 µg/l	≤ 3 µg/l	≤ 5 µg/l	PAH	< 0.1 µg/l
Chromium	13.0 µg/l	≤ 300 µg/l	≤ 50µg/l	NOx-inhib.	< 10 %
Copper	0.28 µg/l	≤ 100 µg/l	≤ 2000 µg/l	Sulphate	< 130 mg/l
Zinc	1.10 µg/l	≤ 3000 µg/l	≤ 3000 µg/l	pH	7 - 8



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