



# FINNCHAIN SOLAR-COVERS



## PREVENT THE ODOR DISORDER

Finnchain Solar Covers are designed to prevent odors from the tank. For this reason, the roof modules are connected closely and if necessary, activated charcoal filters can be used for deaeration.

At the same time this also prevents harmful gases from entering the environment. It is also possible to run the gases into a separate gas treatment device (not included in the Finnchain's basic delivery).

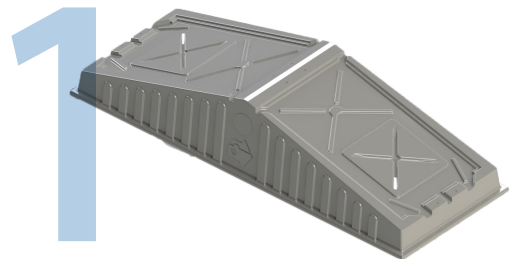
## RENEWABLE ENERGY

Finnchain's Solar Covers also allow use of renewable energy, as cover modules can be equipped with solar panels. The surface area of the tank can then be utilized for renewable energy utilization.

Solar Covers are suitable for covering both new and old rectangular tanks, since existing surface structures are used in installation.

## LESS ALGAE GROWTH

Since covers prevent sunlight from entering the water, amount of algae is decreasing. Covers also prevent snow, rain or sand dust entering the tank.



FC-SOL-1500 cover.



FC-SOL 1500 cover with solar panels.

KEEPING YOUR PROCESS GOING







Support structures for the covers.

## HUITTINEN, FINLAND:

In wastewater treatment plant in Huittinen, it was decided to cover a single sedimentation tank in cooperation with Finnchain, because especially in summer algae growth hampers the process and equipment in operation. In addition, the aim of wastewater treatment plant in Huittinen is to increase the use of renewable energy.

The odor is not a problem at the Huittinen wastewater treatment plant, so the first part of the tank was left uncovered. The uncovered section includes drive wheels and motor. No separate air conditioning or charcoal filter was needed.

## RENEWABLE ENERGY PRODUCTION:

45 roof modules were installed in the sedimentation tank of the Huittinen wastewater treatment plant, so a total amount of 90 solar panels were installed. Solar panels are monopanels and their estimated calculated energy yield by panel manufacturer is about 18.405 MWh.

Because Finland is located in the north, the support structures of the Huittinen wastewater treatment plant covers have been manufactured taking into account 130 kg/m<sup>2</sup> snow load and 25 m/s wind load.



<b>INSTALLATION YEAR:</b>	2018
<b>TANK TYPE:</b>	Secondary sedimentation tank
<b>MEASUREMENTS:</b>	
WIDTH	8 m
LENGTH	60 m
<b>COVER INFORMATION:</b>	
WIND LOAD	25 m / s
SNOW LOAD	130 kg / m <sup>2</sup>
AMOUNT OF COVER MODULES	45 pcs
AMOUNT OF SOLAR PANELS	90 pcs



## THE ADVANTAGES OF FINNCHAIN SYSTEMS

- *New and innovative solutions for chain systems since 1984.*
- *The cornerstones of our operations are reliability and security of supply.*
- *Durable and long-term solutions signify environmental friendliness.*
- *The product's long lifetime and low operating and maintenance costs stand for profitable investments.*
- *A functional and profitable partnership consists of trust and commitment towards common goal.*