

Sonatrach Raffineria Italiana – Augusta Refinery



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Sonatrach Raffineria Italiana – Augusta Refinery buys two SurfCleaner units to reduce VOC emissions

VOC emissions reduction effectively managed by Sonatrach Raffineria Italiana thanks to SurfCleaner technology.

Sonatrach refinery in Augusta on Sicily is one of the largest refineries in Italy. They use API basins to clean their oily wastewater from the plant and needed a solution to clean water containing contaminants traces, such as “oily paraffins”, as well as gasoline, gas oil, lubricant oils, fuel oils, and diesel.

To achieve a further VOC (Volatile Organic Compounds) emissions reduction, the refinery needed a continuous and automatic removal of the water surface contaminants in the API basins. This required an oil removal rate of 2m³ per hour, which is 25% of the SurfCleaner capacity.

SurfCleaner recovers 100% of the oil, with a water content of less than 0.5%

SurfCleaner is a self-adjusting, floating oil skimmer separator hybrid that is suitable for continuous operation. The SurfCleaner has a separation capacity of 8m³ per hour and a maximum flow capacity of 50m³ per hour. The installation environment requires the SurfCleaner to be ATEX certified for Zone 0.

The SurfCleaner technology is unique; by combining variations in inflow velocity and direction with gravimetric separation, the process is very efficient – keeping pollutants from accumulating on the water surface and therefore help minimizing VOC emissions.

The design makes it possible to recover 100% of the oil, with a water content of less than 0.5%. The low water content allows Sonatrach to re-refine the separated oil from the wastewater in light of the new concepts of circular economy within a path of sustainability that the company pursues in terms of values for several years. And the latter was an important factor behind making the decision to buy SurfCleaners.

After the installation in 2019, Sonatrach says:

“The SurfCleaners operate continuously, with good reliability after some early adjustments. SurfCleaners automatically adapt the inflow depending on the thickness of the oil – from light fractions to thick oil – SurfCleaners can work with every type of slop. Before the SurfCleaners we had to manually control the speed of the disc skimmers, which consumed many man hours.

We have been able to reduce our VOC emissions considerably, and we can re-refine the oil that is separated, a double goal achieved in terms of environmental sustainability. We are very happy with the support that SurfCleaner has provided us during the set-up but also with optimizing the process.”



Equipment:

2 x SCO 8000 ATEX

Capacity:

2 x 8,000 l/h

Purchased:

2019