

MBR New Monte Rosa Hut, Switzerland

Task

Construction, delivery and installation of a compact MBR (Membrane Batch Reactor) for the New Monte Rosa Hut, a self-sufficient building in the High Alps.

Membrane-bioreactor-MBR

The biggest and above all technically outstanding alpine hut, the New Monte Rosa Hut, was built between ice, snow and rocks in the *Monte Rosa Massif* around the Swiss centre for climbers and ski centre *Zermatt*. The New Monte Rosa Hut is located 2,883.5 meters above sea level between several glaciers, holds a restaurant for approx. 180 guests and offers up to 130 accommodations.

The sanitary facilities were designed to operate with low water consumption.

Furthermore, the water demand is additionally reduced by reusing the biologically purified wastewater for the toilet flushing and as wash water.

The compact wastewater treatment plant consists of the mechanical pre-treatment (fine screen), the aeration tank, the filtration chamber with submersed siClaro® flat sheet membranes and the separate surplus sludge storage tank.

The effluent inflow is carried out by the lifting station with an adequately dimensioned wastewater storage tank.



Technical Data

Population Equivalent (PE)	55 PE
Wastewater inflow (m ³ /d)	3,5
Filtering surface installed (m ²)	50
Aeration tank (m ³)	5,5
Wastewater storage tank (m ³)	3,0