The Client’s Needs
Salinen Austria’s Ebensee salt production facility wished to improve the performance of one of their existing, single-stage, mechanical vapor recompression units. Their concerns were production rate, steam usage, power consumption, and system availability. The system required frequent wash cycles which significantly impacted production capacity as well as the economic efficiency of overall operations.

Salinen Austria AG (www.salinen.com)
Ebensee, Austria– Salinen Austria is Austria’s leading provider of high-quality salt products. This includes production of table salt, food-grade salt, chemical-grade salt, pharmaceutical salt and salt tablets for water softening.

They produce more than 1,100,000 tons of salt per year, exporting more than 40% of their capacity.
The Solution
Veolia Water Technologies was contracted to modify the process equipment and employ several proven innovations used on HPD® Salt Crystallization systems worldwide. The main focus was replacement of the heat exchanger, vapor body recirculation inlet and outlet nozzles, and the elutiation leg with proprietary Veolia designs to increase overall system efficiency.

The scope of the project also included integration of a new, larger axial flow recirculation pump to accommodate the new heat exchange area. Veolia also provided process engineering assistance to convert feed brine treatment from a batch existing system to a semi-continuous process with improved effectiveness and capacity.

System Performance and Results
After the successful completion of the performance test following improvements were achieved:
- 25% Increase in salt production
- 20% Decrease in energy consumption
- On-stream time more than quadrupled
- Elimination of make-up steam requirements