Effective processing of industrial wastewater.
Trendsetting technology from the ZLD experts.

During evaporation of industrial wastewater the pollutants are concentrated in the heat exchanger of the evaporation system. This results in scaling on the inner heat exchanger surface and might even end up in blocking the heat exchanger pipes.

Consequently system availability is reduced and extensive manual cleaning efforts are necessary. In addition the scaling reduces efficiency of the evaporation system. Energy consumption is increased as well as the amount of evaporation residue.

The self-cleaning Activepowerclean heat exchanger reduces scaling and blocking of pipes already during the evaporation process.

Inside the heat exchanger there are small ceramic balls, the so called Activepowerclean grinding balls. Due to high flow rates inside the heat exchanger pipes those grinding balls are circulated, reducing scaling reliably.

Consequently operating efforts are reduced, since no extensive chemical and manual cleaning of the heat exchanger pipes is necessary.

The self-cleaning Activepowerclean heat exchanger is one of the main reasons enabling us to reduce energy consumption of our VACUDEST wastewater evaporators by 28 % in recent years.

Energy consumption of VACUDEST series

<table>
<thead>
<tr>
<th>Year</th>
<th>Energy Consumption (kWh/gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>0.3</td>
</tr>
<tr>
<td>today</td>
<td>0.21</td>
</tr>
</tbody>
</table>

The Activepowerclean heat exchanger is one of the main reasons enabling us to reduce energy consumption of our VACUDEST wastewater evaporators by 28 % in recent years.

Increased system availability.
The Activepowerclean heat exchanger reduces scaling and prevents blocking of pipes reliably. This noticeably reduces cleaning efforts between evaporation cycles. Consequently system availability is increased, operation efforts are reduced and consumption of rinsing chemicals is halved.

Higher energy efficiency.
Scaling reduces heat transfer due to its insulating characteristics and therefore reduces energy efficiency. The Activepowerclean heat exchanger improves heat transfer substantially, resulting in constantly low energy consumption.

Less evaporation residue.
Scaling in conventional wastewater evaporators limits the achievable evaporation rate. Thanks to the advanced Activepowerclean technology scaling is reduced considerably, resulting in lower amounts of evaporation residue and therefore reduced waste management cost.

Highest profitability.
Take advantage of the Activepowerclean technology: Reduced maintenance and operation efforts, increased system availability, better energy efficiency and reduced waste management cost.