



## WATER IN THE SURFACE TREATMENT INDUSTRY

PCA is already 30 years active in the design and construction of water pretreatment installations for the surface treatment industry. This includes on one hand the effluent pretreatment, and on the other hand the production of demin water.

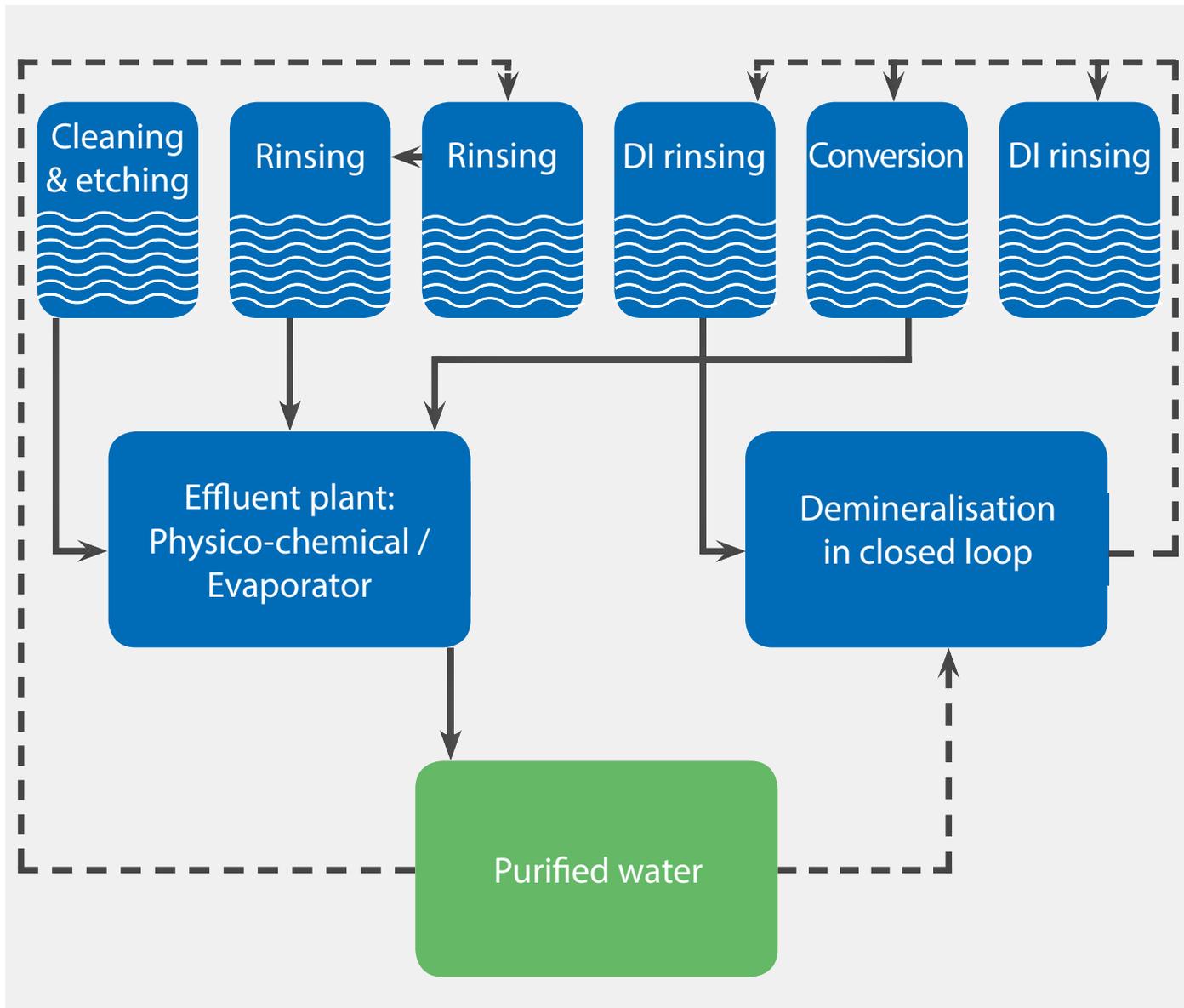
We did about 80 projects in different countries. Thanks to this experience, we can offer you the most suitable solution for your specific situation.

	Option 1	Option 2
Pretreatment	<p><b>Physico-chemical treatment:</b></p> <ul style="list-style-type: none"> <li>- Dosing of lime or caustic</li> <li>- Precipitation of the sludge</li> <li>- Dewatering of the sludge</li> <li>- Discharge purified water to the sewer</li> </ul>	<p><b>Evaporator:</b></p> <ul style="list-style-type: none"> <li>- Neutralization of the effluent</li> <li>- Evaporation / condensation of the effluent</li> <li>- Recover the purified water (no discharge)</li> </ul>
Production of DI water	<p><b>Reverse osmosis:</b></p> <ul style="list-style-type: none"> <li>- Little chemicals needed</li> <li>- No closed loop</li> <li>- Little follow-up needed</li> </ul>	<p><b>Resins:</b></p> <ul style="list-style-type: none"> <li>- HCl + NaOH needed</li> <li>- Recycling of DI water in closed loop</li> <li>- Regeneration liquid needs treatment</li> <li>- Water-saving compared to RO</li> </ul>



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Most of the pretreatment lines have a similar set-up. This is an exemple of an aluminium treatment plant.



The rinsing water, used after the etching and cleaning, is treated in the effluent pretreatment plant. This treatment can be done by an evaporator, in order to re-use the waste water. Alternatively you can use a physico-chemical treatment, but then, you will have to discharge the water into the sewer.

The demin water is produced in a closed circuit over the resin columns. There is no loss of demin water. When the resins are saturated, they need to be regenerated. This regeneration effluent is also treated in the effluent treatment plant.