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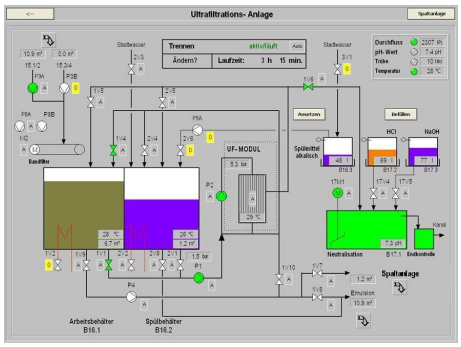
Automatic Splitting of Retentates of an Ultrafiltration Plant



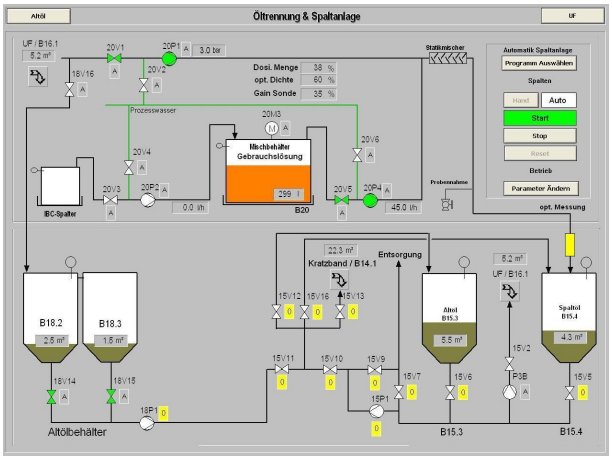
The oily rinsing water of a metal processing company is cleaned with an ultrafiltration plant (UF). If necessary the retained retentate is split with organic demulsifiers automatically with an **ARU** dosing control system.

The objective of the measure is the significant reducing of oily sludge, which has to be disposed. At the same time, the water content of sludge is reduced.

The modules of the UF must be rinsed after the ultrafiltration process is complete. During this time, the retentate is pumped to the split oil tank and is split automatically.

When the splitting process is finished, the **ARU** splitting plant is rinsed automatically and is ready for further use.

The used diluted organic demulsifier is provided as a stock solution in an automatic preparation station.



The static separation of oil and water phase takes place in the split oil tank. The oil phase contains only approximately 30% water. This corresponds to a reduction of the disposal quantity of approx. 60%. The water phase is pumped back into the storage tank of the ultrafiltration plant.

Another positive effect of the automatic retentate split with the **ARU** dosing control is the increasing of the capacity of the UF plant. Because there is no concentration of the retentate across the membranes, the membranes become soiled not excessively and the time can be used for rinsing of the membranes.

The automatic splitting plant was integrated into the existing emulsion processing without much effort.