

Advanced Monitoring System (AMS) for process control

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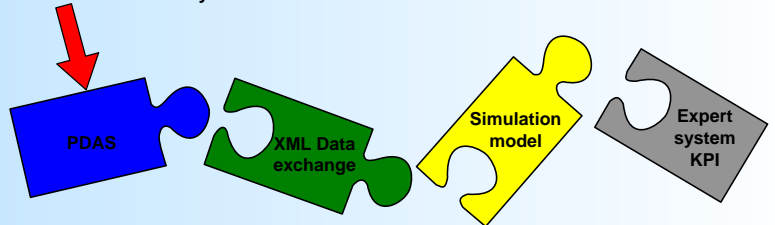
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AMS - Objectives

- AMS is a software tool processing data of the Process Data Acquisition System (PDAS) & laboratory system => complementary link between condition and performance monitoring.
- AMS based on standard, industry accepted and proven software: Sugars™: Process modelling software
Visio®: Process visualization software
- AMS is an integrated on-line mass- energy and colour balance of the process based on the Sugars™ program.
- Approx. 100-150 input variables are necessary compared to up to 3.000 -10.000 values usually recorded by the processing system and in the laboratory to model the process.

Process Control System (PCS)
& laboratory data



AMS - Targets

Consistent mass- energy and colour balance of the process => transparent factory.

Equipment performance is directly shown.

AMS based on processing modules – avoids mathematical (connection)-errors.

System is fully open and programmable – limited manufacturer reliance.

Easy handling & training for „non-graduates“ e.g., control terminal staff.

Quick and easy adaptation of the factory model in case of changes in the process scheme.

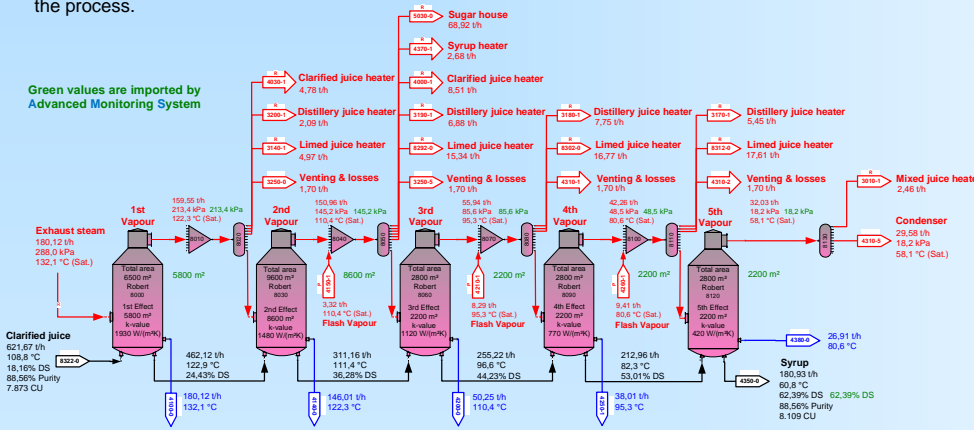


Figure 1: Simulation model of an evaporation station

AMS - Summary

- Basis for future expert systems
- Sugars™/AMS offers an excellent process overview
- Reconciliation of process values versus the Sugars™/AMS calculation
- Reduction of process automation and control equipment
- Maintenance and personnel cost reduction

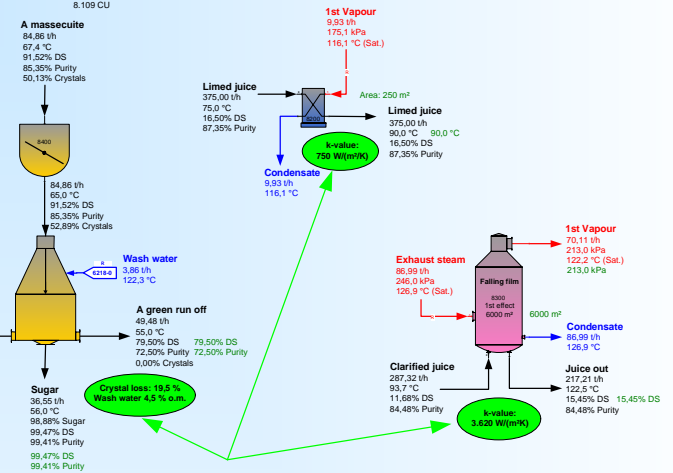


Figure 2: Key Performance Indexes (KPI) of chosen equipment

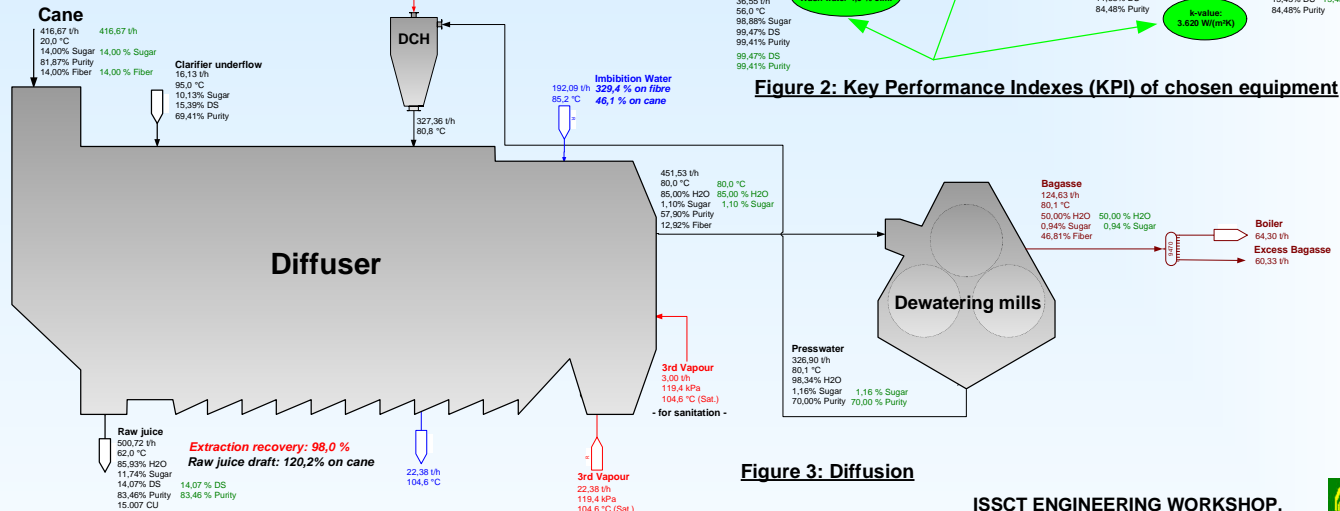


Figure 3: Diffusion

