



Potassium Chloride Plants

Highlights

In the potash industry potassium chloride is separated from the KCl containing mother liquor of different compositions depending on raw material in DTB (Draft Tube Baffle) or FC (forced circulation) crystallisers under strictly controlled conditions to produce crystals with a closely defined Crystal Size Distribution.

Process Characteristics

1. Crystal magma concentration is closely controlled to optimise the residence time and hence growth potential in the crystallisers
2. The slow moving internal circulation propeller minimises attrition of the crystals in the DTB
3. Multiple effect systems optimise heat economy
4. Heat recovery maximised by utilising the process vapour to preheat the return brine with either heat exchangers or direct contact heaters
5. Co-crystallization of NaCl avoided by close control of concentrations
6. Product purity achieved by washing in-situ on the centrifuges



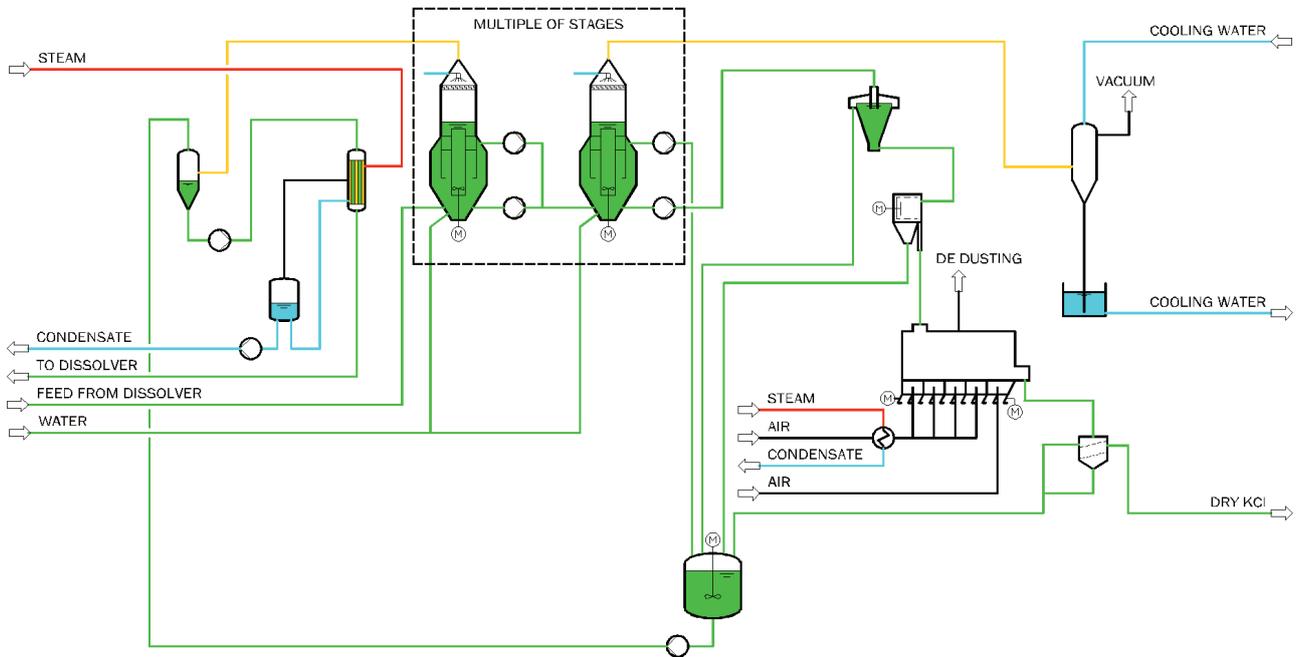
Centrifuge



Fluid Bed Drier



Typical Flow Diagram



Plant Characteristics

- Number of effects according to required steam economy
- Special feeder system ensures constant feed rate to centrifuge
- Fluid bed drier with integrated cooler for exact moisture level in product
- High quality condensate recovered