

Evaporation Plants for Alumina Refineries

Highlights

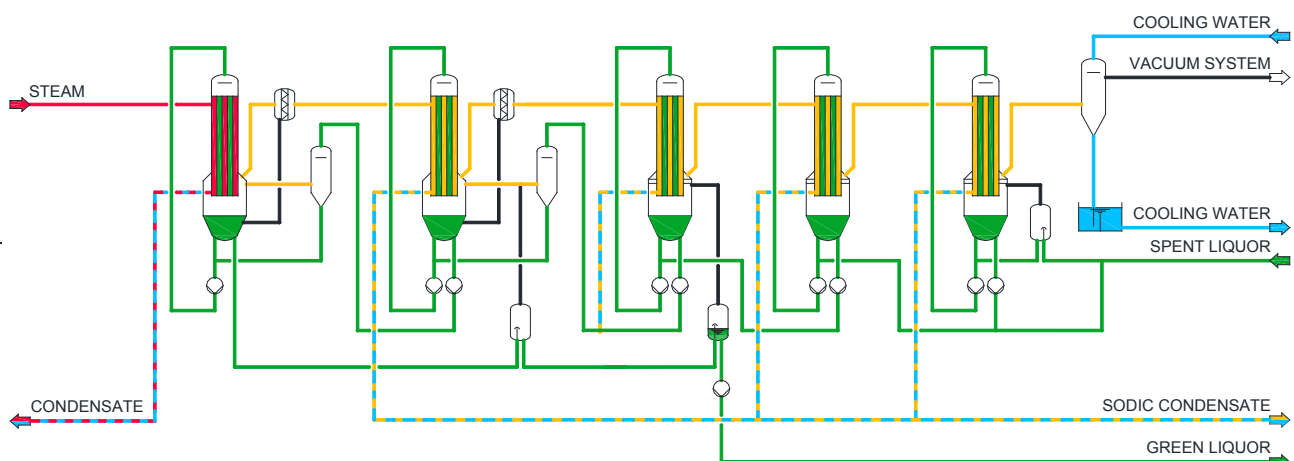
In the Bayer process for the production of alumina from bauxite ore the weak aluminate liquor has to be concentrated so that it can be recycled to the digestion. Depending upon the digestion technology the following evaporative systems can be supplied:

- Multi stage flash
- Multi stage falling film
- Combined plants
- Forced circulation for salting out

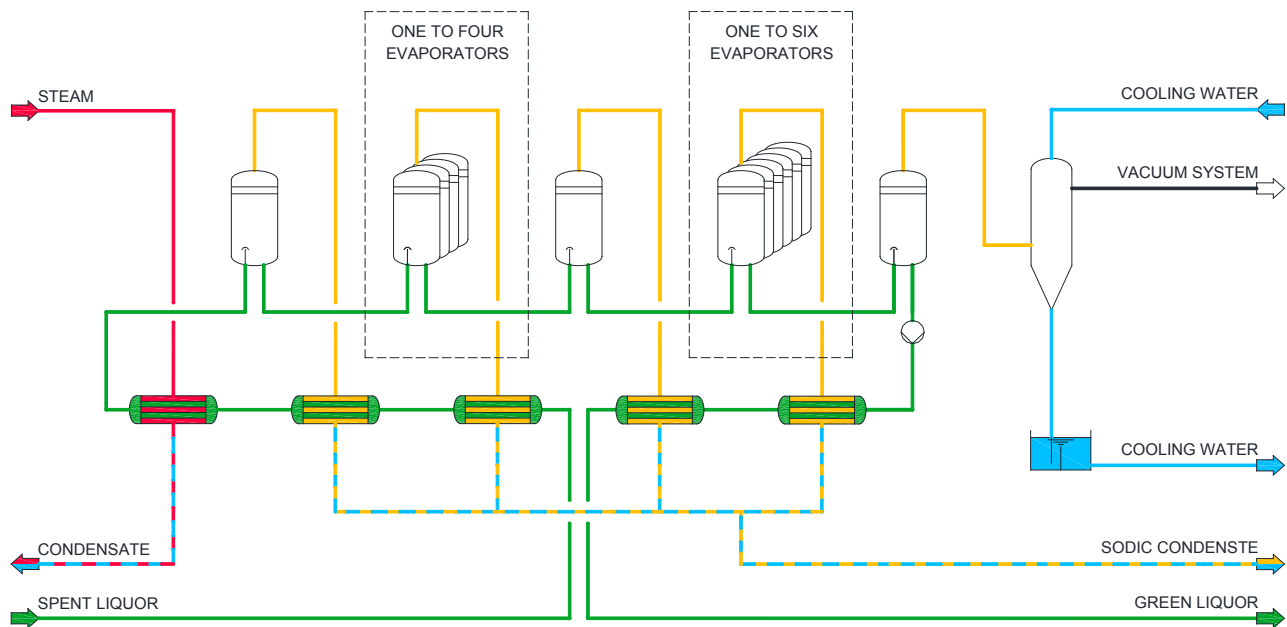
Process Characteristics:

1. Steam consumption minimised by heat recovery configurations
2. Scaling reduced with lower operating temperature profiles
3. Frequency controlled pumps reduce power consumption
4. Multi-configuration operation increases operating flexibility and enables evaporators to be washed whilst production is maintained
5. High grade condensate recovered for returning to the boiler house
6. Special evaporators for salting out duties

Falling Film Evaporation Plant



Flash Evaporation Plant



Plant Characteristics

- Evaporation capacity up to 300 t/h per train
- High steam economy
- Long intervals between washing
- Plant configurations can be changed quickly for washing