

Brine Purification Process

Highlights

Brine purification improves the brine quality upstream of a salt crystallisation plant. By means of chemical treatment a brine is obtained which is nearly free of calcium and magnesium which can be produced and fed directly into the evaporation process.

This brine purification process leads to an efficient use of process chemicals.

Advantages for the plant operator

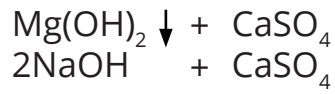
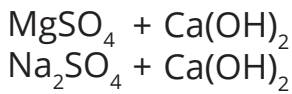
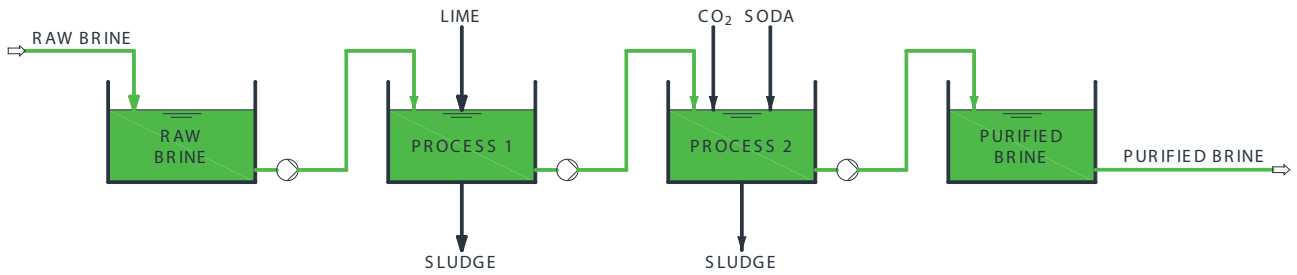
1. Improved purity of the salt product
2. Extended lifetime of plant equipment
3. Reduced energy consumption in the evaporation process
4. Fewer cleaning cycles



Pumping Station for Chemical Additives



Brine Purification Plant



Features of the Process

- Chemicals: CaO, CO₂, Na₂CO₃
- Minimum soda consumption
- NaOH no longer needed
- Significant soda savings due to caustification reaction combined with CO₂ addition
- Most efficient for brines with high sulphate content or mother liquor recirculation