



Plants for the Simultaneous Production of NaCl / Na₂SO₄

Advantages

Producing high quality NaCl and Na₂SO₄ in the same plant offers an attractive means of utilising sulphate rich brines as a feedstock for salt works to maximise revenue by:

1. Minimising Brine Feed

- Less solution mining → Lower pumping costs
- Smaller brine purification plant → Reduced chemical consumption
- Smaller crystallization plant → Smaller equipment
→ Lower overall plant cost

2. Reducing Purge Flow

- Lower salt losses → Higher NaCl recovery
→ Pure Na₂SO₄ as by-product

3. Environmental Gains

- Less purge from crystallization → Reduced disposal cost
- Less sludge from brine plant

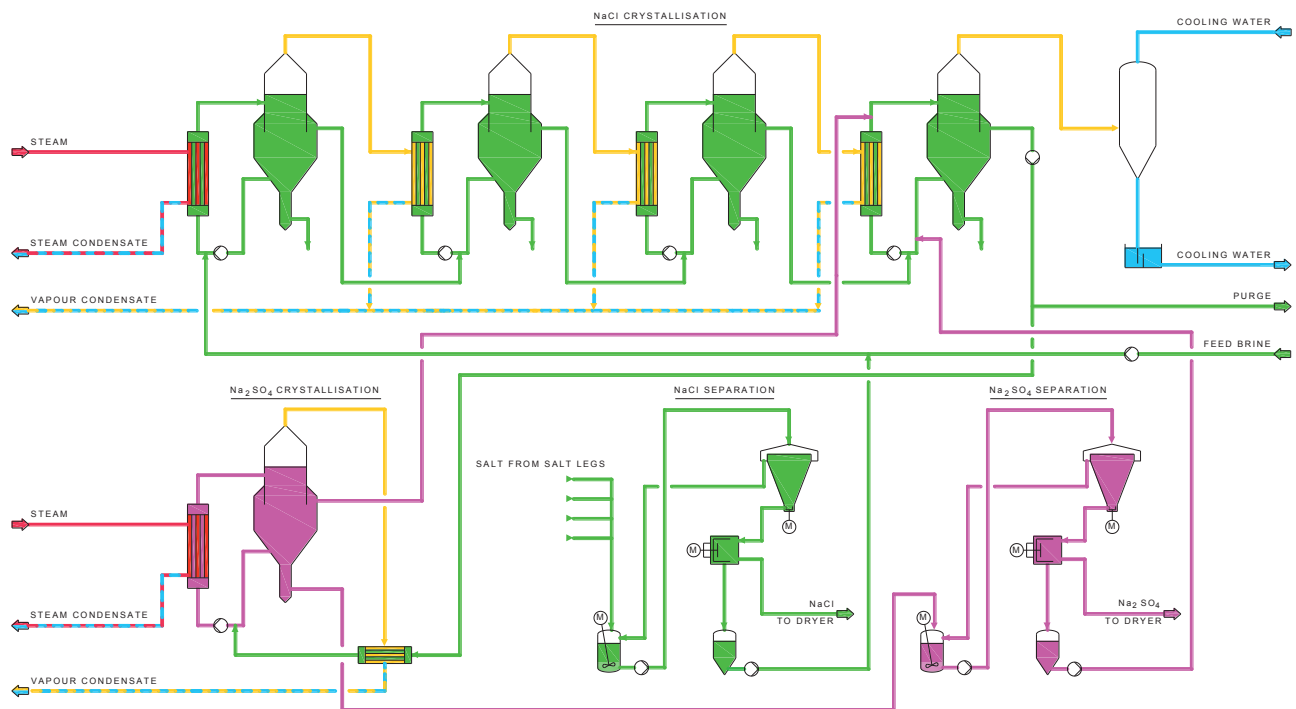


Installation of NaCl/Na₂SO₄ combined plant



Circulation pump

Typical Flow Diagram



Plant Characteristics

- Reference plants of up to 1.2 million tpa
- Advanced concepts to minimize operating costs
- Depending upon the relative costs of steam and and electric power, the design can be based upon:
 - Multiple effect (ME)
 - Mechanical Vapour Recompression (MVR)
 - Thermal Vapour Recompression (Ejectors)