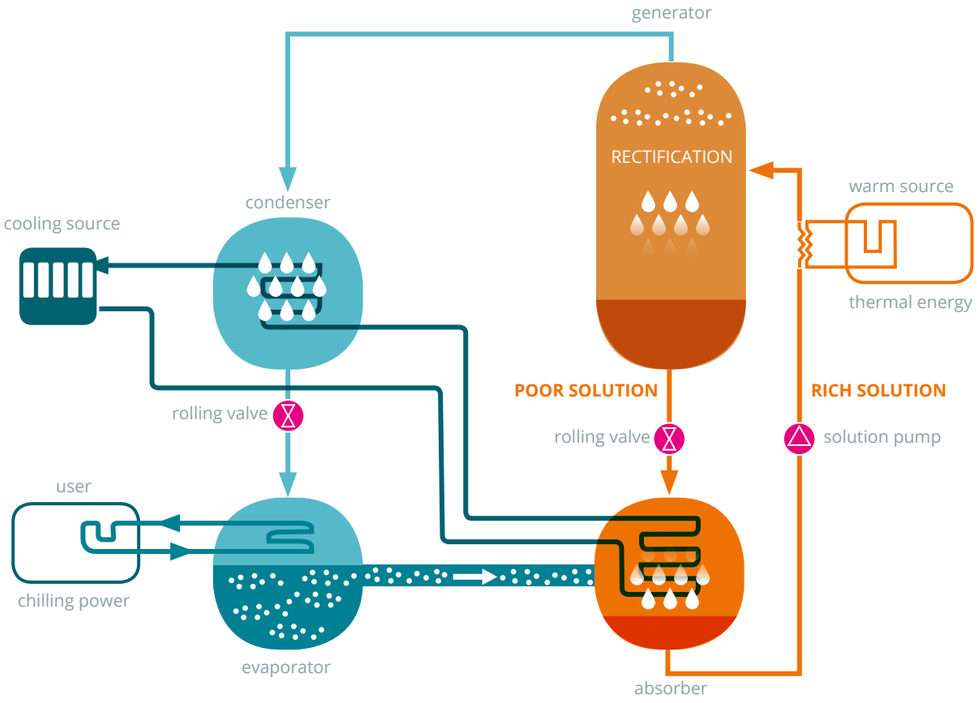
Absorbers

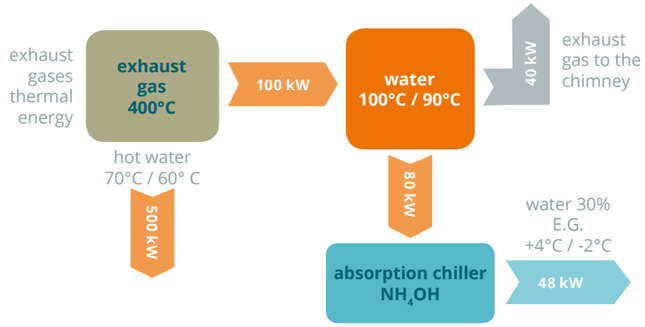
enermatik®

Absorption cycle



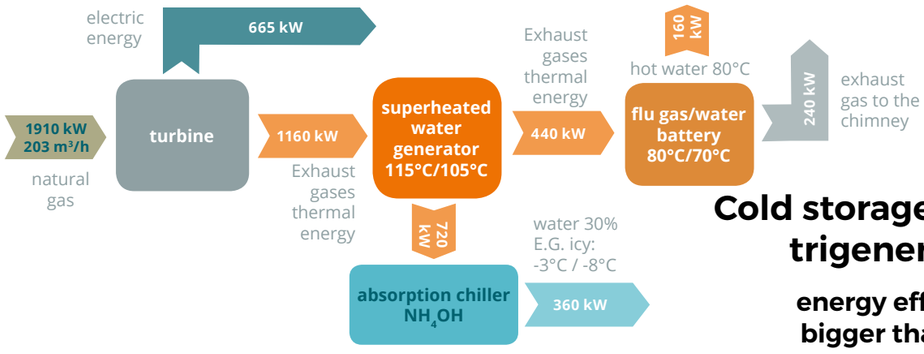
Starting from a **warm thermal energy**, chilling absorption machines produce chilling power. This is different from what occurs with vapor compression machines, using electro-mechanical work to get the same goal. In absorption chillers, the compression process is replaced by the solutions pump. In the absorber, ammonia, in the gaseous form, coming from the evaporator, is absorbed in the water/ammonia solution. This solution, become "rich", is pumped into the generator (high pressure circuit), where the warm thermal energy source transfers heat to it.
Ammonia is again separated by the solution to be chilled and liquefied in the condenser. Liquid ammonia is then expanded and sent to the evaporator, creating cold.
The "poor" solution is sent back to the absorber. Condenser and absorber heat is dispelled from the evaporative tower and/or the evaporative condenser.

Energy diagrams



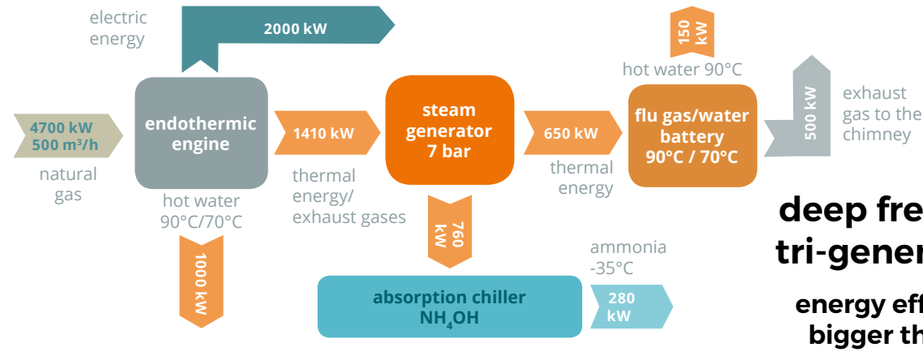
Industrial gas recovery

energy efficiency bigger than 93%



Cold storage cells trigeneration

energy efficiency bigger than 80%



deep freezing tri-generation

energy efficiency bigger than82%