

Sulzer VoltaSplit™ electrified distillation



Unique features

- Optimized distillation design combined with energy saving solution
- Allows a drastic reduction of steam consumption and direct CO₂ emissions.
- Optimized control for efficient joint operation of the compressor and the distillation column.
- Highly adaptable to process conditions independent of the industry.
- Process performance guarantee
- Proven and reliable technology

How can we help you? Contact us today to find your best solution.

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Reduce energy consumption and CO₂ footprint of your distillation unit

Distillation columns are among the largest consumers of steam in a chemical plant, this steam is typically produced burning fossil fuels in steam boilers, which accounts for high operating expenditures and significant CO₂ emissions.

Chemical, biofuels, pharmaceutical and many other industries are actively seeking ways to reduce their carbon dioxide footprint. Distillation units emerge as a great opportunity to achieve this goal.

Sulzer Chemtech offers the proven and reliable VoltaSplit technology for electrified distillation through vapor recompression.

Compared to traditional steam-based distillation, it drastically cuts steam consumption and direct CO₂ emissions by at least 90%. This allows a quick return of investment and a successful CO₂ footprint reduction.

Compared to electric reboilers, VoltaSplit requires 5 to 20 times less electricity which makes it economically sustainable to be implemented on medium and large scale.

Sulzer VoltaSplit technology can reduce the overall investment for both greenfield and capacity expansion projects, reducing the size of some equipment like steam boilers and cooling towers.

How it works

Sulzer Chemtech offers the VoltaSplit technology for electrified distillation through vapor recompression. Our cutting-edge design allows the recompression of the overhead vapors which are then used as heating medium in the reboiler.

For special applications where vapors cannot be directly compressed, an external loop with vapor recompression is used. The compressor and distillation column control system is fine tuned to achieve maximum efficiency and enhanced stability during operations.