

# MONTZ MECHVAP

## MECHANICAL VAPOR RECOMPRESSION AT A GLANCE

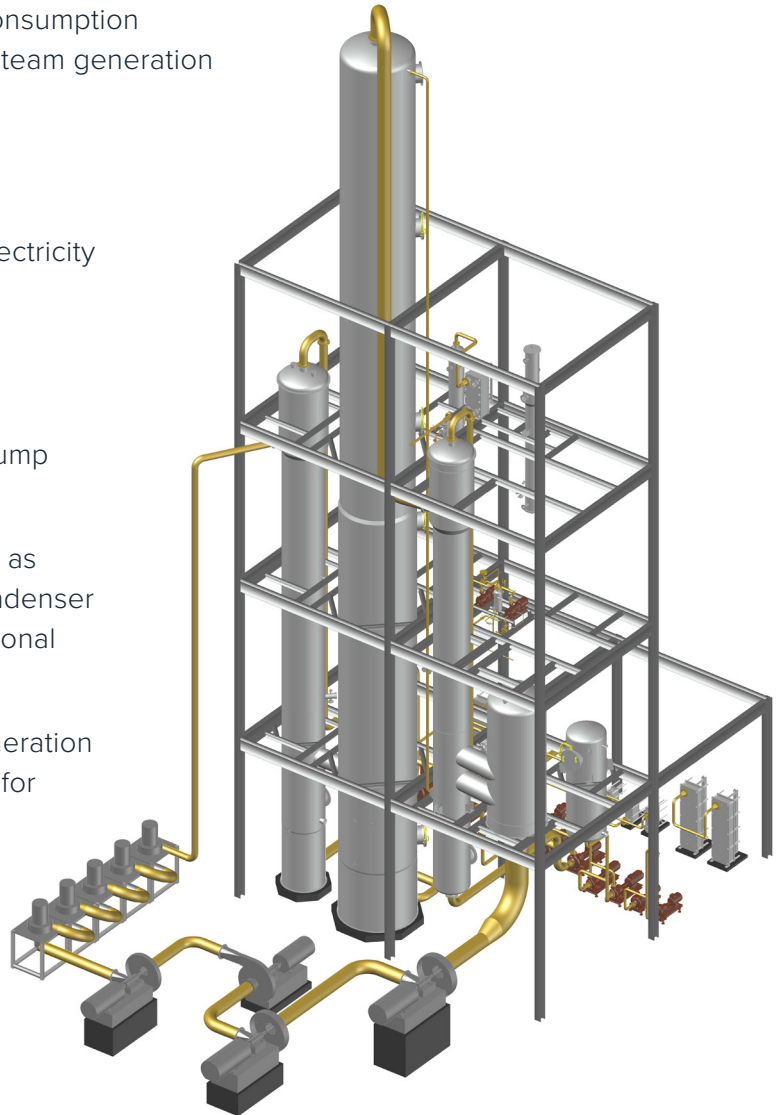
- Significant reduction in thermal energy consumption (steam) and primary energy required for steam generation

### ► ENERGY SOURCE: ELECTRICITY

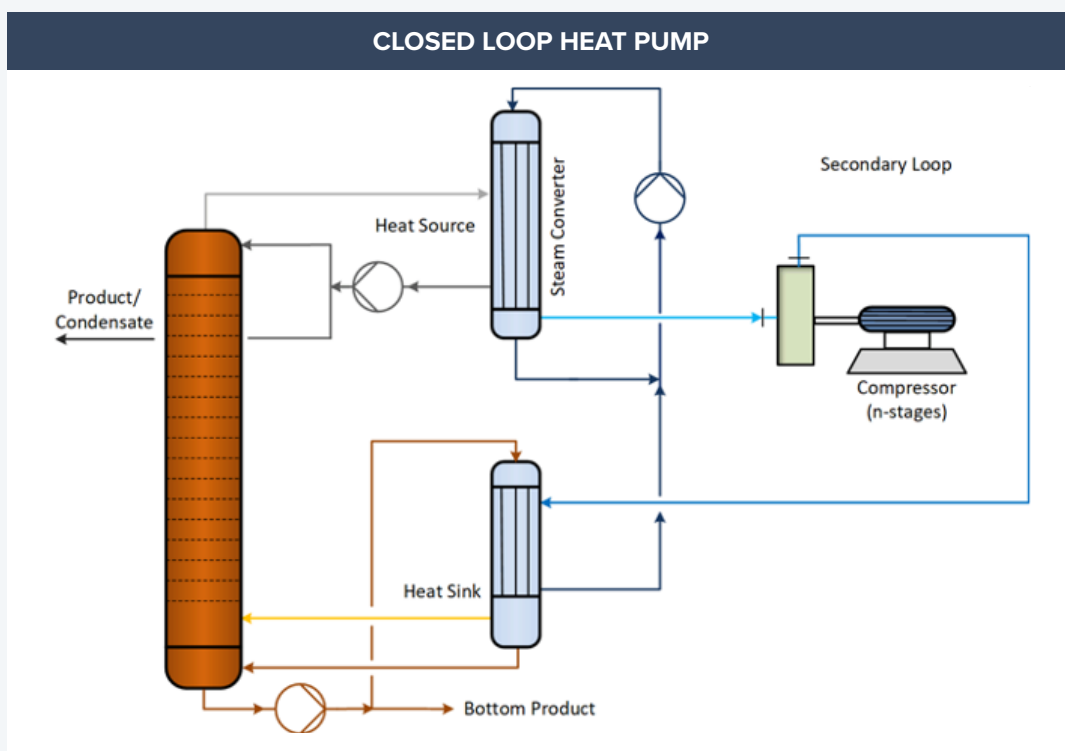
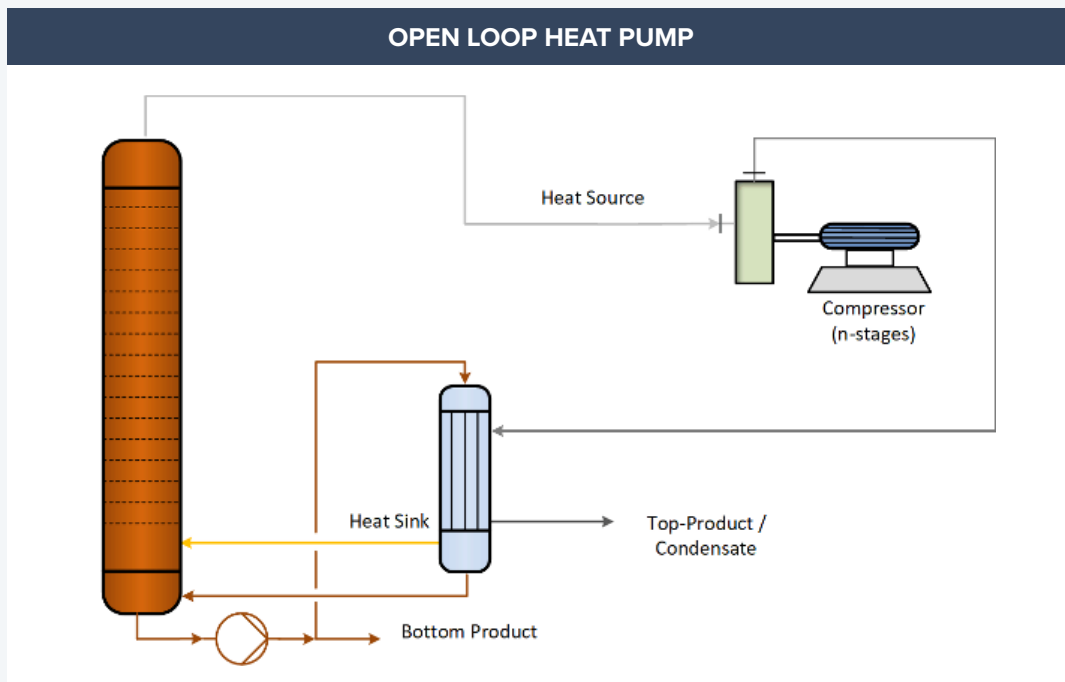
- Lower cooling water consumption
- Reduced carbon footprint, especially if electricity from renewable energy sources is used

### How Does the Process Work?

- Operating principle: Compression heat pump as an open or closed loop system
- Recovery of heat available in the process as heat source (e.g., head vapors / head condenser of a distillation column), which in conventional operations is dissipated to cooling water
- Direct vapor utilization (open loop) or generation of secondary steam in a steam converter for further utilization (closed loop)
- Raising the pressure and temperature level of the vapor by electrically operated single stage compressors or multi-stage compressor cascades
- By compressing the vapor to a higher condensation temperature, it can serve as heating medium for an evaporator (e.g. reboiler for a distillation column)
- The smaller the temperature difference between heat source and heat sink, the higher is the process efficiency
- MONTZ high-performance structured packings minimize pressure drop and thus further enhance efficiency by reducing the temperature difference between the heat source and heat sink



# VAPOR RECOMPRESSION OVERVIEW



For more information about Montz MechVap or other Montz products, contact us here: [montzprocessplants@kes.global](mailto:montzprocessplants@kes.global)

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