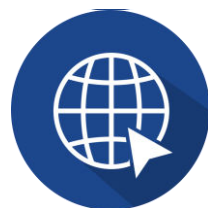
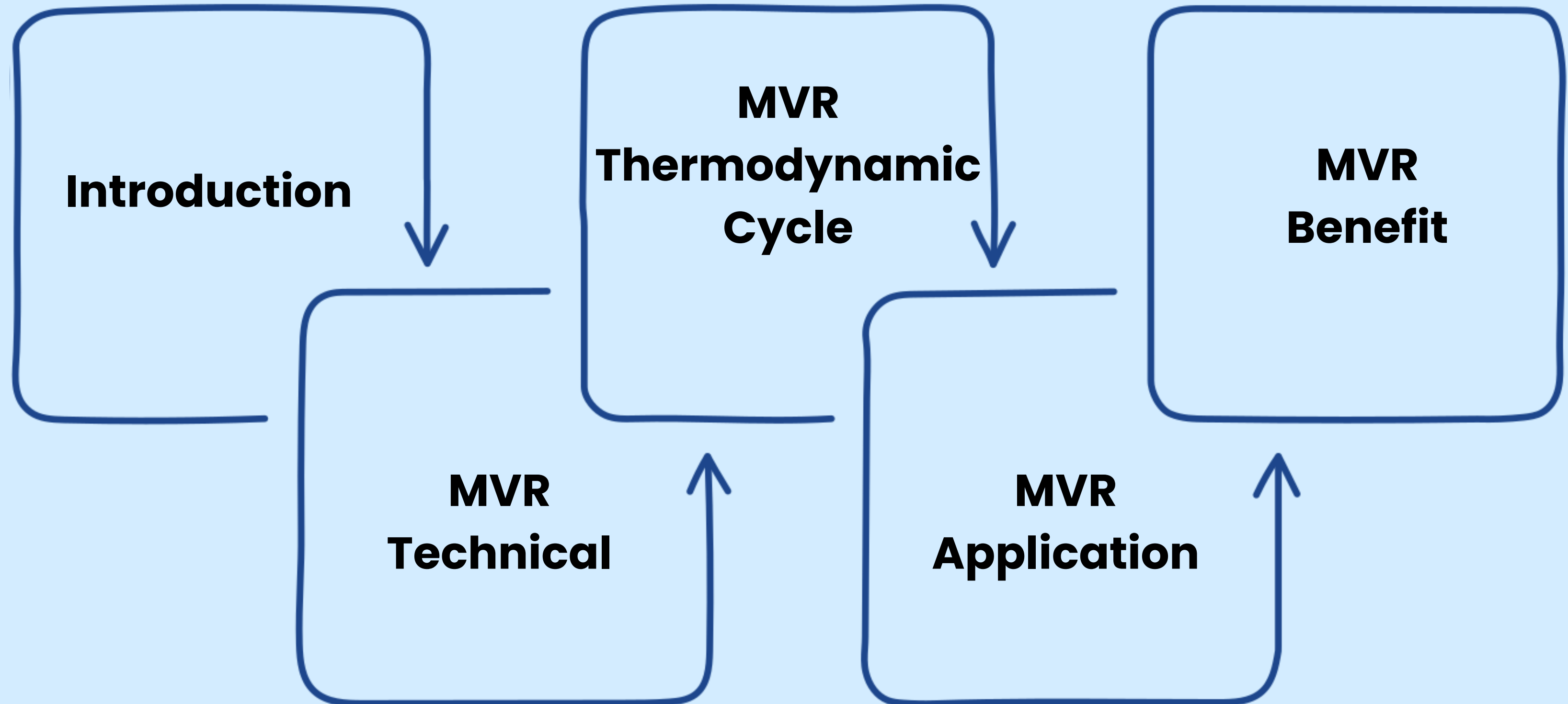


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Mechanical Vapour Recompression



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Introduction

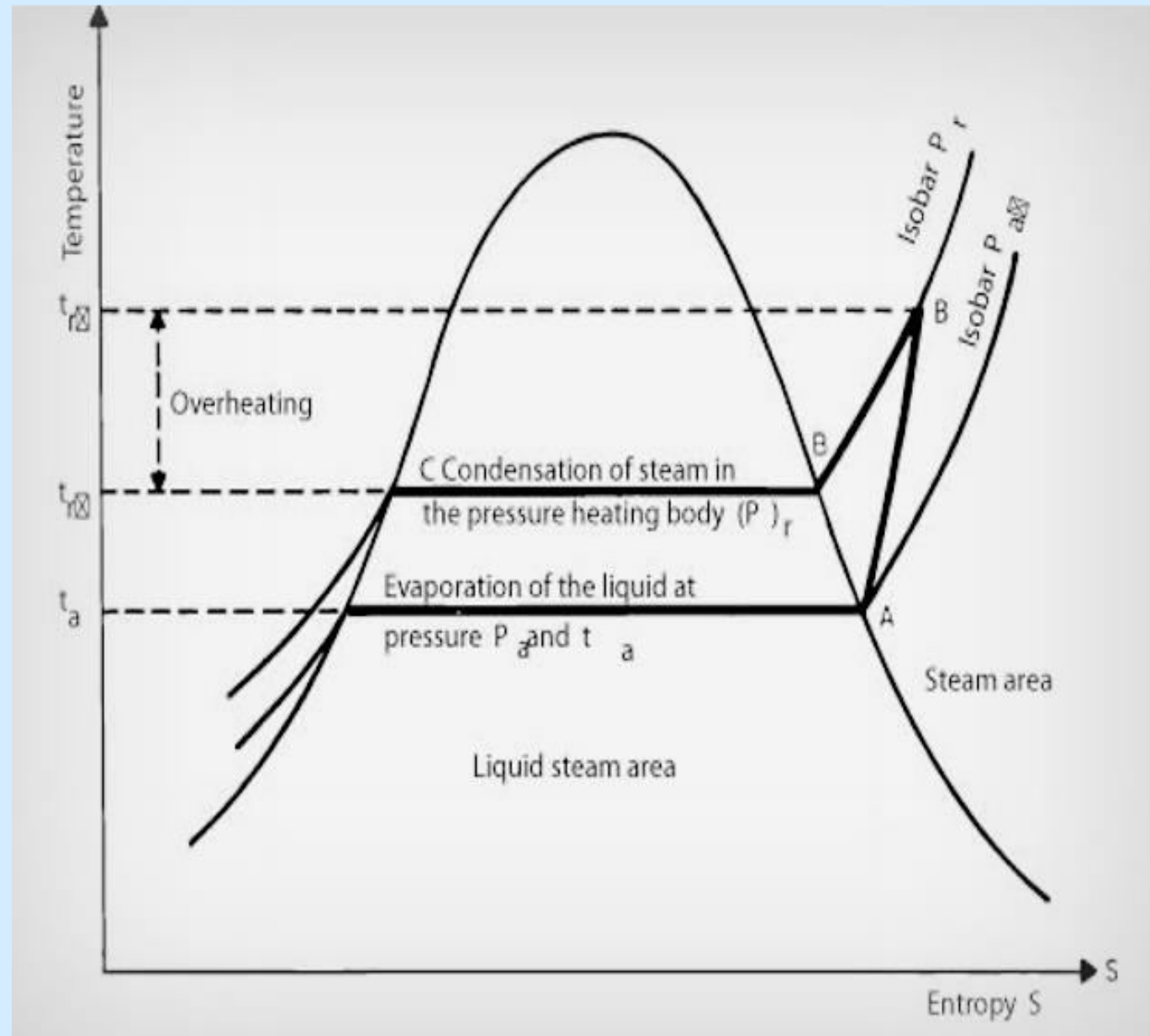
Mechanical Vapour
Recompression (MVR) is a proven
energy-saving evaporation
technology, which reduces thermal
energy consumption by 98–99%.

MVR Technical

- MVR technology is energy-saving technology incorporating energy recycling thereby eliminating the use of thermal energy for evaporation.
- MVR technology achieves low-temperature as well as high-temperature evaporation, depending on the application. For material which are sensitive to high temperature, low temperature is applicable and for applications where solubility decreases with increasing temperature, high temperature MVR technology is applied.
- MVR technology configuration is simple in construction that can be fully-automated, with continuous operation.

MVR Thermodynamic Cycle

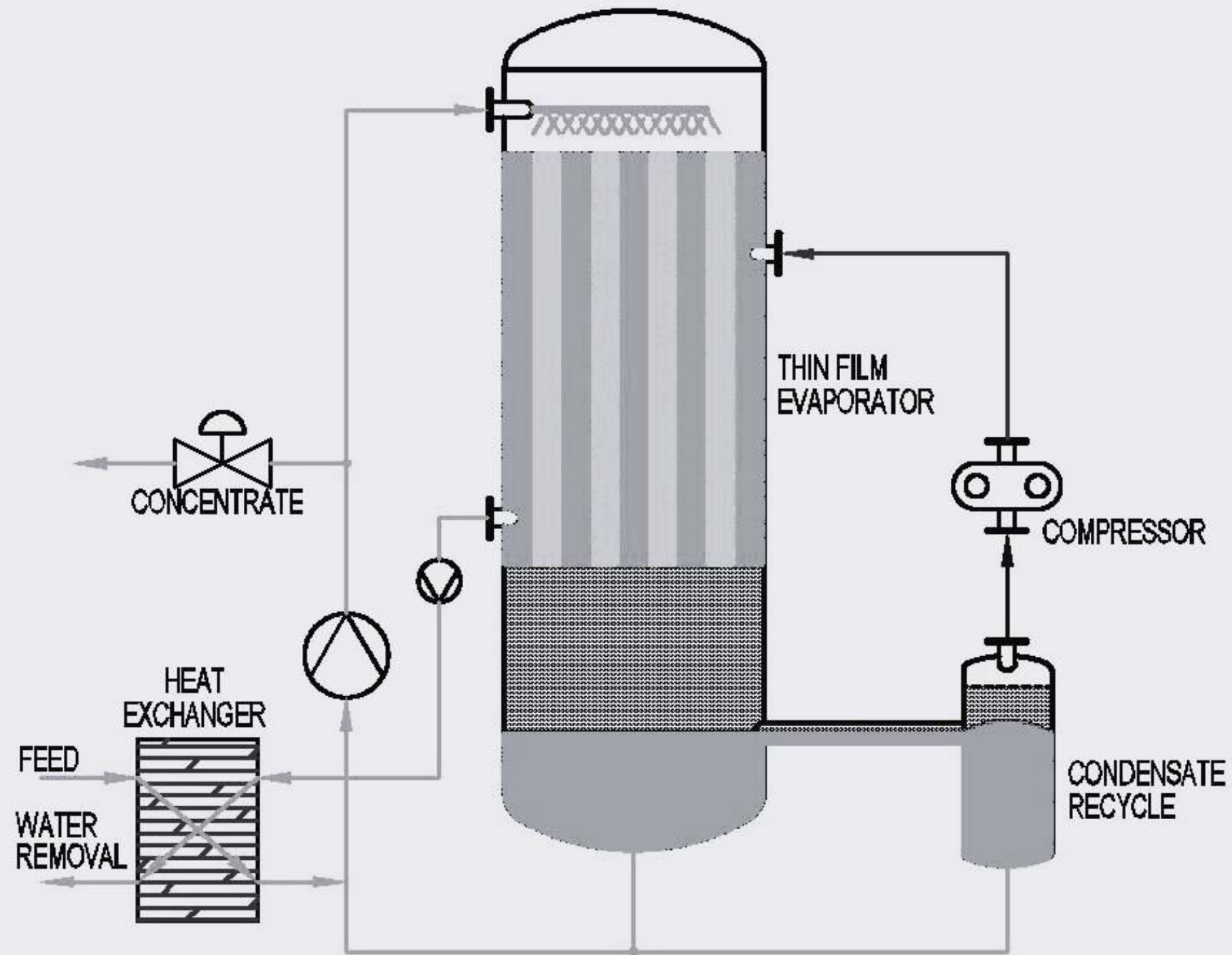
- MVR utilises energy recovered by compression of its own vapor produced . Due to compression the pressure and temperature of vapour increases which can be recycled and reused.
- The compressed vapour has higher enthalpy which can be recycled , leading to a highly-efficient evaporation process.



- From Boyle's law it is known for a gas that PV/T (Pressure * Volume / Temperature) is constant ($PV/T=K$). During compression of vapor, the pressure and temperature increase. From this, the heat energy can be reused.

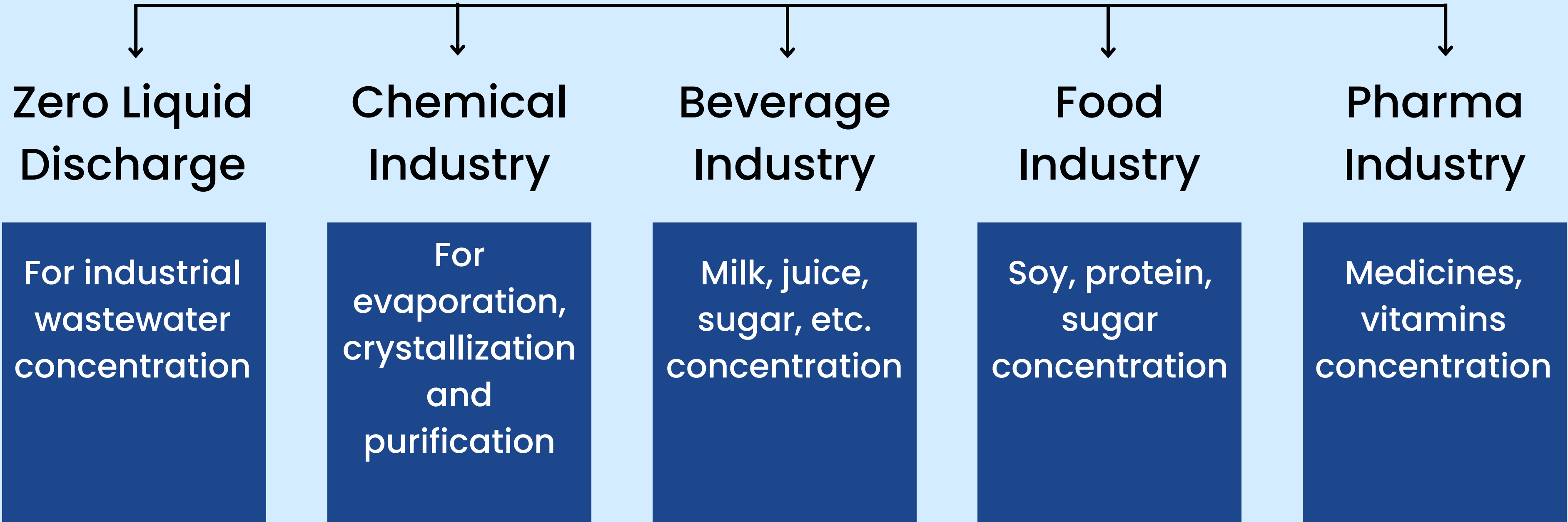
- The energy normally lost in the compression is recovered, leading to a highly-efficient evaporation process.

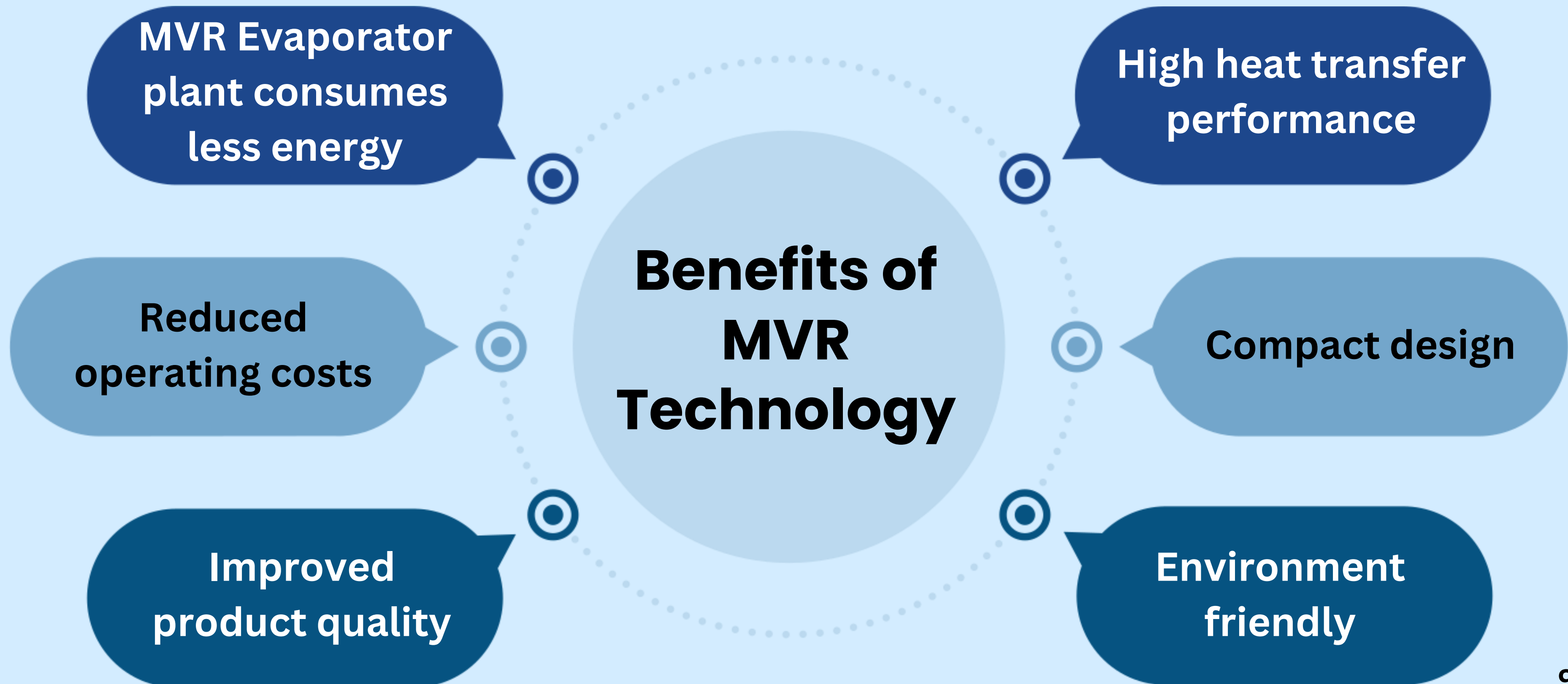
- Since this compression is realized by a simple mechanical compressor, the process is called MVR.



Mechanical Vapour Recompression System

MVR Applications





THANK YOU

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