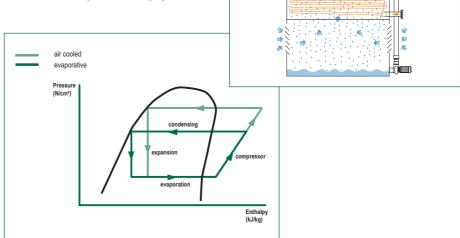
Refrigerant condensers

Principle of operation

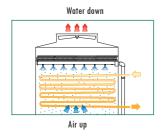
Evaporative condensers discharge refrigerant and air-conditioning heat, and consume minimal energy and water. They combine a cooling tower and a refrigerant condenser in a single unit. A small portion of the water is evaporated, removing the heat from the refrigerant and condensing it inside the coil. This saves up to 95% of the water compared with a once-through condensing system.

Benefits

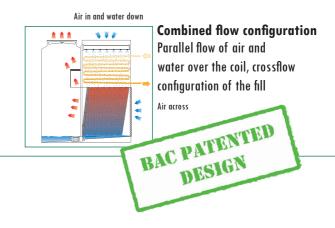
- Initial cost savings: cooling tower, condenser surface, water pump and piping in a single equipment unit
- Low system operating costs: low condensing temperatures for a more compact compressor using less power
- Low refrigerant charge, costs and environmental impact minimized
- Space-saving: up to 50 % area savings compared to comparable air-cooled installations



Configurations



Counterflow configuration



Pressurized spray system



Fan systems



Radial fan

- can overcome external static pressure, suitable for indoor installations
- inherently quiet and energy efficient



Centrifugal fan

- can overcome external static pressure, suitable for indoor installations
- inherently quiet



Axial fan

 low energy usage

Forced draft

- rotating air handling components are located on the air inlet face at the base of the tower
- easy access for maintenance
- located in dry entering air stream

Induced draft

- rotating air handling components are mounted in the top deck of the unit
- minimal impact of fan noise
- maximum protection from fan icing
- located in the corrosive saturated discharge air stream

