

CoilCool



Save energy and maintain comfort
add CoilCool to your Rooftop HVAC Unit.

CoilCool Implementation Requirements

The Customer is responsible for providing the following required elements in support of a CoilCool project.

Electrical Requirements: A 115v single phase outlet inside the controls cabinet of each rooftop unit where a CoilCool unit is installed.

Water Requirements: Water connection for the CoilCool makeup water. The makeup water line must deliver at least 1.5 gpm at 20 psi and should be valved so that it can be drained in winter, if necessary. ICI will provide a backflow preventer, and water distribution piping to each CoilCool unit as required.

Product Description/Overview

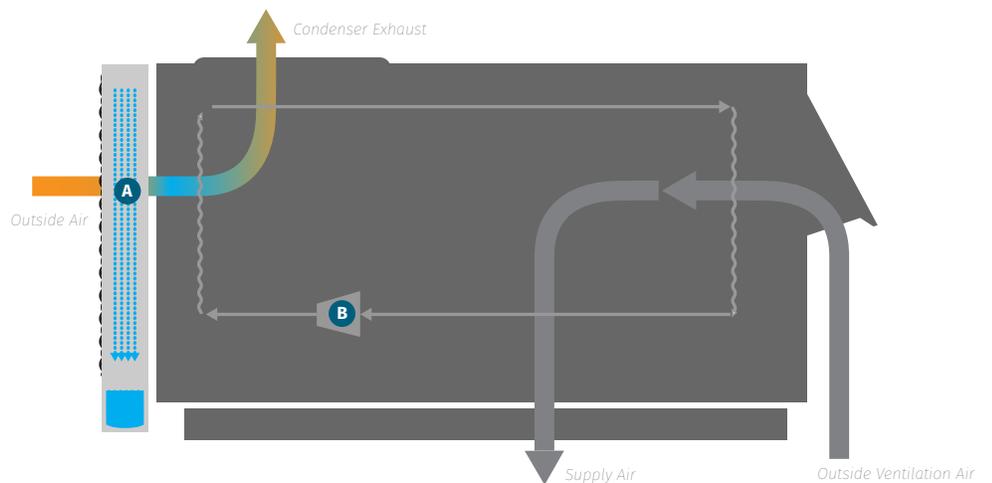
CoilCool system components include stainless steel pre-cooler frames, rigid evaporative cooling media, a submersible pump, The CoilCool pump circulates water over the evaporative media. A bleed system discharges a small portion of the water to maintain water quality in hard water areas.

Service & Warranty

The service plan, carried out by trained service crews, includes three scheduled site visits per season: Within the warranty period, ICI will replace any defective components at no charge to the customer. As a “wear component” the evaporative media will be replaced if necessary on a pro-rated basis in comparison with its 5 year expected life. The warranty does not cover:

- Damage to pumps if the water supply has been interrupted by a customer’s agent
- Failure of the evaporative media if a customer’s agent has reduced the required bleed flow rate

CoilCool Schematic



A. Evaporative Condenser Pre-cooler reduces the workload for the compressor **B.** The vapor compression system uses less energy to meet comfort demands

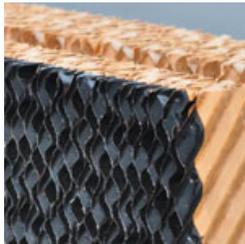


Included Materials Overview

The Pre-Cooler Enclosure: is made from stainless steel and is custom-fit to each rooftop unit. The design facilitates an affordable “lifetime” enclosure that will outlast the rooftop unit to which it is attached. The design also facilitates easy removal of the evaporative media yet holds the media securely in windy conditions.



A Submersible Pump: moves cool water from the reservoir beneath the evaporative media to a distribution tube above the evaporative media. Water flowing by gravity downward through the media cools the air entering the large condenser coil through which refrigerant is discharging heat to the outside air.



Evaporative Media: These 8” thick blocks of “cross-corrugated” treated cellulose are the highest quality evaporative media available, squeezing near-maximum cooling from the evaporative process. Both the airstream and the water are cooled evaporatively as water flows evenly downward from the stainless steel reflector above the perforated media.



Controls Solutions: The Standard CoilCool control is a thermostat that activates the pump when outdoor temperature exceeds a preset value (typically 70°F to 75°F). Upgraded Controls options provide Fault Detection and greater integration with the RTU, including interlocks with Blowers, Fans, and Economizers.



Bleed System: The CoilCool “bleed” system limits the concentration of hardness minerals in the CoilCool water loop. Without the bleed system, minerals can build up on all surfaces that the water contacts, compromising both appearance and function of the system.