THE 2-STEP CYCLE IN YORK® ABSORPTION CHILLERS



APORATOR

Reliable energy-saving technology, explained.

CONVENTIONAL CYCLE

Imagine a rocket ship trying to reach the moon. In the example here, the rocket ship only has one rocket to push it the entire distance from the earth to the moon – requiring 100% of the fuel. In much the same way, a conventional-cycle absorption chiller only has one evaporator and absorber to overcome cooling output requirements and achieve the cooling load, which requires 100% input energy.

2-STEP EVAPORATOR/ABSORBER CYCLE

Now imagine the rocket ship has two rockets to share the goal of reaching the moon. Both rockets need less fuel, since they share the effort to get the rocket ship to its goal. Instead of a single rocket bearing the entire job from point A to point B, two rockets split the effort, allowing for a continuation of effective effort and requiring only 90% of the fuel. This example illustrates the 2-step evaporator/absorber cycle, which allows the evaporator and absorber to achieve the necessary cooling output over two steps while using 10% less input energy.

The 2-step evaporator/absorber cycle requires less energy input and a lower salt solution concentration, allowing for increased reliability and 10% energy savings.



Input Energy Required to Achieve Cooling Load



Salt Solution Concentration

EVAPORATOR + ABSORBER

EVAPORATOR + ABSORBER 2



Learn more about the benefits of YORK[®] 2-step cycle technology at YORK.com/Absorption-Chillers

