

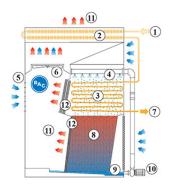
# Principle of operation

## Refrigerant condensers

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#### **Operation 1**

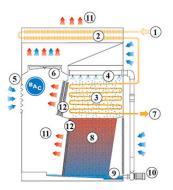
The vapour (1) passes first through the dry finned coil (2) and then enters the prime surface coil (3), which is wetted by a spray system (4). When the dampers (5) are closed an axial fan (6) draws air over the prime surface coil in parallel with the water spray flow. The evaporation process condenses the vapour into liquid (7). The spray water falls onto a fill pack (8) where it is cooled before falling into the sloping water basin (9) or sump. The spray pump (10) recirculates the cooled water to the spray system. The warm saturated air (11) leaves the tower through the drift eliminators (12) over the dry finned coil where it picks up additional sensible heat.





## **Operation 2**

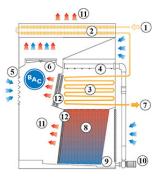
If the ambient temperature is below the condensing temperature, the **dampers** will modulate **open**. The air flow increases and air distribution shifts, so that less air is drawn over the prime surface coil and fill pack. This enhances the sensible heat transfer and further reduces the water consumption.





## **Operation 3**

Complete **dry operation** is possible when **switching off the spray pump**.



**Want to use the HXC condenser?** Contact your local <u>BAC representative</u> for more information.

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