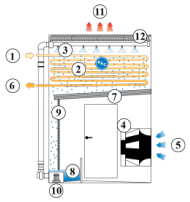
Principle of operation

Refrigerant condensers

Principle of operation



Refrigerant vapour (1) circulates through an **evaporative condensing coil (2)**, which is continuously wetted by the **spray system (3)** installed at the top of the condenser. At the same time the **direct driven radial fans (4)**, located at the bottom of the unit, blow ambient **air (5)** upwards through the condenser.
During operation, heat is transferred from the refrigerant to the water, and then to the atmosphere as a portion of the water that evaporates. The condensed vapour then **exits the unit (6)**. The remaining spray water that falls on the **sloping channels (7)** continuously flows into the **sloping sump (8)**, where the water is collected. **The double blank-off wall (9)** prevents water splash-out to the dry section. The spray water **pump (10)** recirculates the water up to the water spray system. The warm saturated **air (11)** leaves the condenser through the drift **eliminators (12)** , which remove water droplets from the air.

Interested in the Polairis™ condenser? Contact your local BAC representative for more information.