

## Principle of operation

## Refrigerant condensers

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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. **Access louvers (9)** prevent 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 <u>BAC</u> representative for more information.

