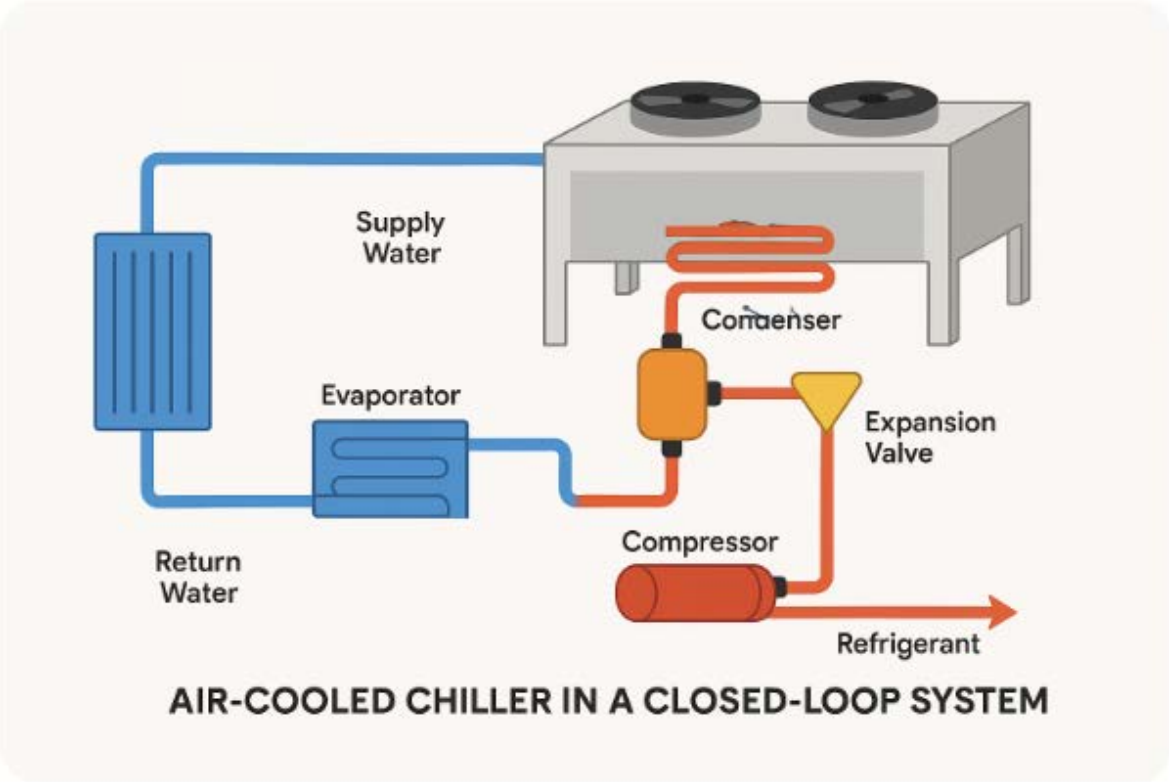

Key Components in an Air-Cooled Chiller

- **Compressor**: Pumps refrigerant through the system, raising its pressure and temperature.
- **Evaporator (Heat Exchanger)**: Where chilled water gives up its heat to the refrigerant.
- **Air-Cooled Condenser**: Uses ambient air and fans to reject heat from the refrigerant to the outdoors.
- **Expansion Valve**: Reduces refrigerant pressure so it can absorb heat again.
- **Pumps (on the water side)**: Move chilled water through the loop to and from the load.

Air-cooled, closed-loop chiller system delivers reliable cooling while reducing water use. By recirculating water through a sealed piping network, the system keeps the loop efficient and free from outside contaminants. Heat absorbed from building or computer equipment is transferred into the chiller and rejected directly into the air using condenser fans. This closed design prevents water loss from evaporation delivering significant water savings. The result is a sustainable, environmentally responsible solution that combines dependable performance with meaningful conservation benefits.