

AIR-COOLED CHILLER SYSTEM FOR DATA CENTERS



CLOSED LOOP. ZERO WATER LOSS.
Designed so no water is lost in normal operation
due to evaporation.

HOW IT WORKS

1

HEAT PICKUP
Warm water from the data center returns to the chiller and gives up heat in the brazed plate evaporator.

2

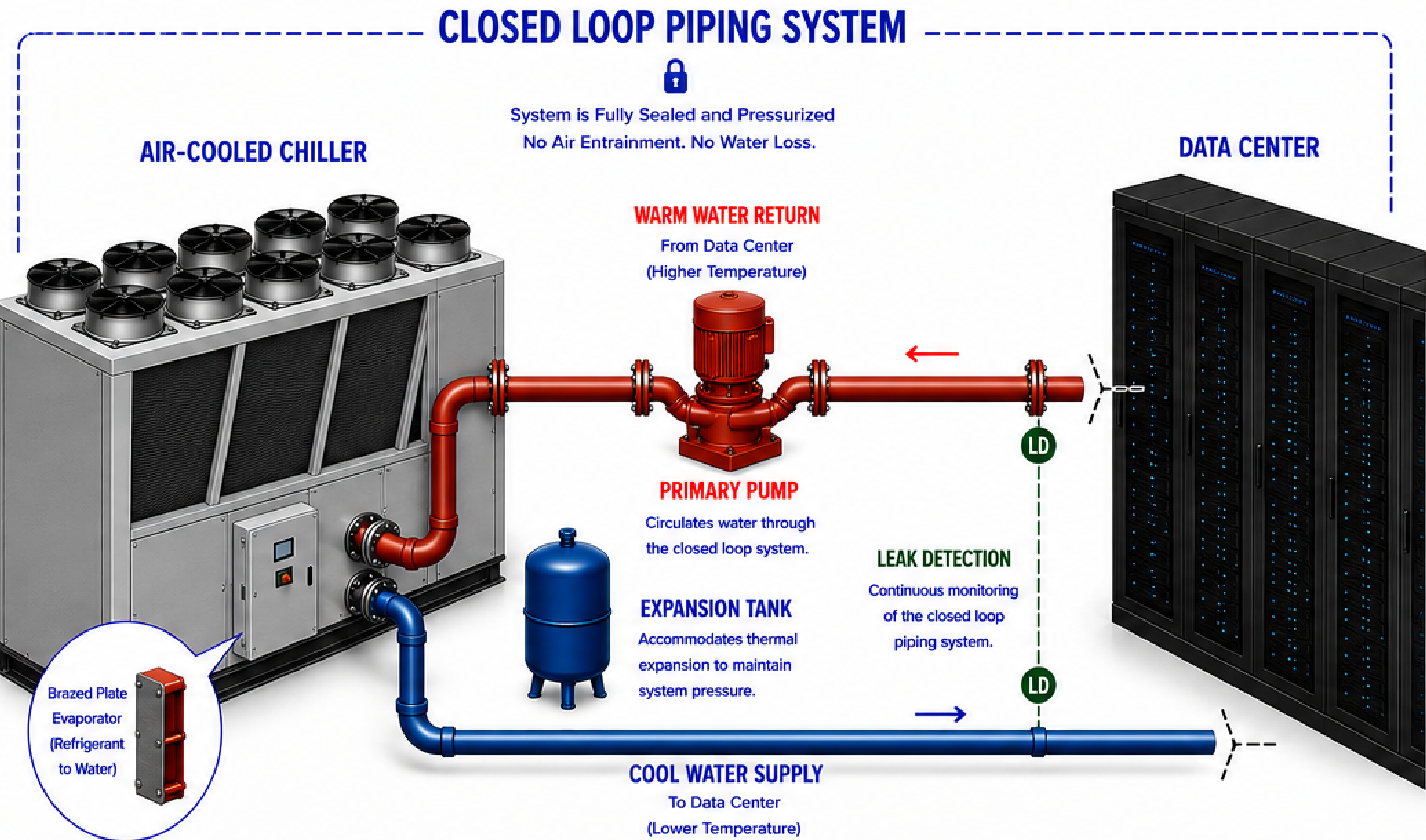
HEAT REJECTION
The chiller transfers the heat to refrigerant. The refrigerant releases the heat to outside air across air-cooled condenser coils with fans.

3

COOL SUPPLY
Cooled water is supplied back to the data center to remove heat from IT equipment.

4

CLOSED LOOP
The system is completely sealed. The same water circulates continuously with no consumption or evaporation loss in normal operation.



KEY BENEFITS

ZERO WATER LOSS
No evaporation means no water is consumed in normal operation.

SUSTAINABLE
Conserves a precious resource and supports ESG goals.

RELIABLE
Closed, pressurized system prevents contamination and minimizes maintenance.

COST-EFFECTIVE
No make-up water requirements and lower operating costs.

OPTIMIZED FOR DATA CENTERS
Consistent cooling performance for maximum uptime.

- SYSTEM COMPONENTS**
- Air-Cooled Chiller with Brazed Plate Evaporator
 - Primary Pump
 - Expansion Tank
 - Temperature Sensors
 - Isolation Valves
 - Safety Relief Valve
 - Air Separator
 - Leak Detection System
 - Controls & Monitoring

NO WATER LOSS IN NORMAL OPERATION

NO EVAPORATION
Heat is rejected to air, not water.

NO BLOWDOWN
No domestic water make-up required.

NO DRIFT
No cooling tower drift or losses.

NO CONSUMPTION
Water stays in the system where it belongs.

Water Used On Campus Will Include:

1. Typical Domestic Uses: Toilets and Sinks
2. Maintenance Water To Hose Down Equipment and Typical Maintenance Activities

**MODERN REFRIGERANTS
LOW GWP & ODP**

Our chillers use modern, environmentally responsible refrigerants that comply with state and federal guidelines.

- Low Global Warming Potential (GWP)
- Zero Ozone Depletion Potential (ODP)

Compliant with EPA SNAP, ASHRAE, and state regulations.



CLOSED LOOP. ZERO WATER LOSS.



Smart Cooling for
Mission-Critical Performance.



Protecting Resources.
Powering the Future.