COBALT™
Immersion Cooling System
for Data Centers

COOLER OPTIONS

DRY COOLER

IMMERSION COOLING TANK

ADIABATIC/HYBRID COOLER

EVAPORATIVE COOLER

**SCALABLE
HIGH DENSITY COMPUTING**

**BALANCING
PUE AND WUE**

**SUSTAINABLE AND
RELIABLE OPERATION**

BAC's COBALT™ Immersion Cooling System for data centers combines a wide range of heat rejection technologies with immersion cooling tanks. This enables scalable high-density computing with sustainable and reliable operation for data centers, solving the cooling challenges of tomorrow, today.

OUTDOOR: HEAT REJECTION TECHNOLOGIES

Each BAC cooler offers a unique balance between Power Usage Effectiveness (PUE) and Water Usage Effectiveness (WUE), providing options to meet site specific goals. The complete BAC cooling system protects the servers while optimizing data center performance and operating cost.

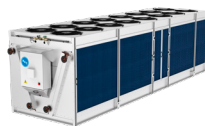### OUTDOOR HEAT REJECTION TECHOLOGIES WATER AND ENERGY USAGE BY COOLER TYPE

MOST USAGE

LEAST USAGE
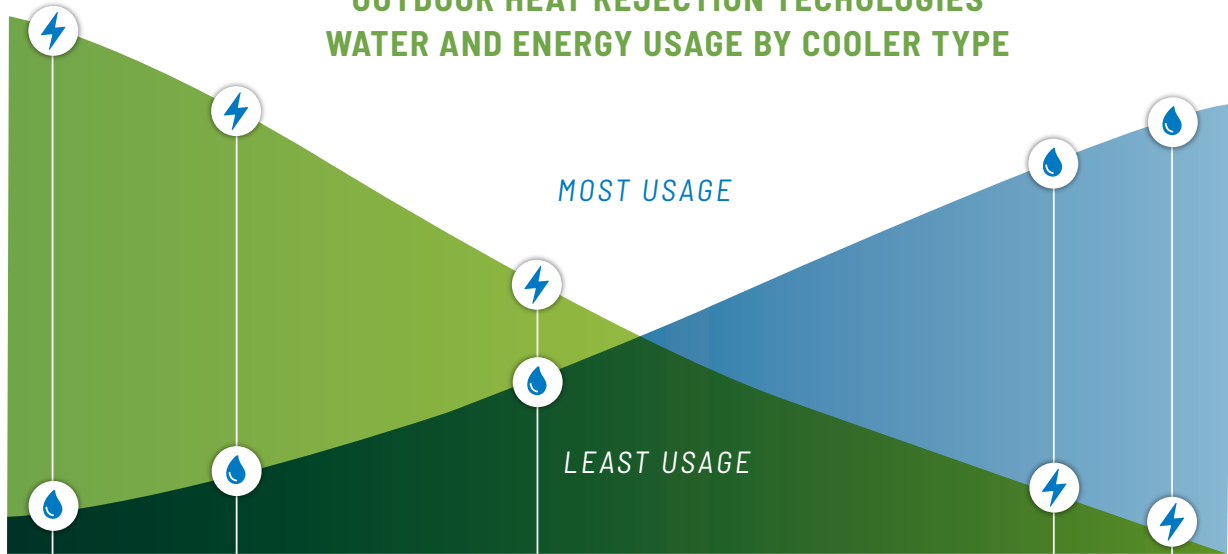
DRY COOLERS

Use air to reject heat, **no need for water** to cool indoor spaces

ADIABATIC COOLERS

During the hottest days, **small amounts of water** are used to pre-cool air to save energy

HYBRID COOLERS

With **both evaporative & dry capabilities,** this solution offers sites a balance of water and energy usage

EVAPORATIVE COOLERS

CLOSED CIRCUIT COOLING TOWERS

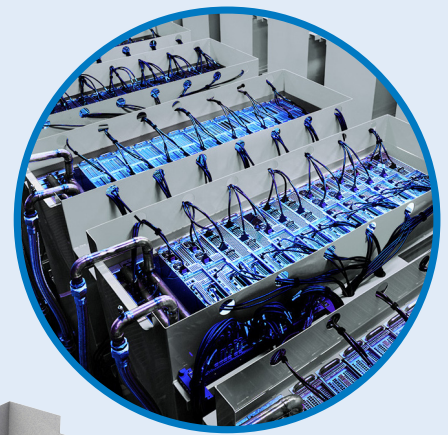Keep the system clean and contaminant-free in a closed loop while **using evaporative cooling**
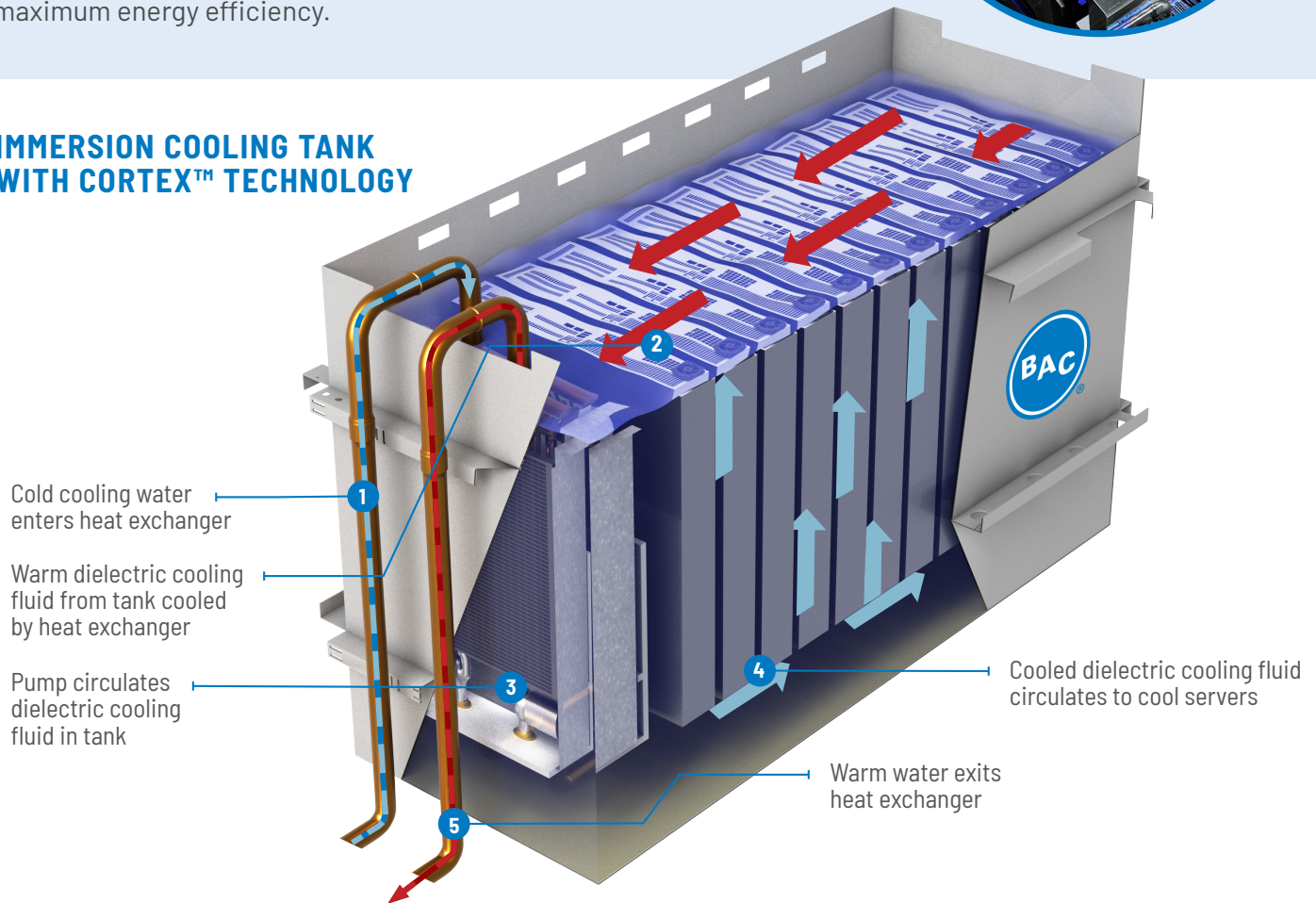
OPEN COOLING TOWERS

Water flows directly over the heat transfer surface **saving energy**

INDOOR: PATENTED IMMERSION COOLING TANK WITH CORTEX™ TECHNOLOGY

With the rapid growing demand for data centers, facilities are requiring the most advanced and sustainable cooling solutions on the market. BAC delivers patented and proven immersion cooling technology to cool servers, which have remarkable scalability and maximum energy efficiency.

IMMERSION COOLING TANK WITH CORTEX™ TECHNOLOGY

Cold cooling water enters heat exchanger — 1

Warm dielectric cooling fluid from tank cooled by heat exchanger — 2

Pump circulates dielectric cooling fluid in tank — 3

Cooled dielectric cooling fluid circulates to cool servers — 4

Warm water exits heat exchanger — 5

⚡ ENERGY EFFICIENCY

• Up to 51% less overall energy than traditional designs
• Lowest PUE <1.05
• Patented Cortex™ Technology with heat exchanger submerged allows for highest efficiency of heat transfer

🛡 HIGHEST RELIABILITY

• Eliminates common failure points extending server life
• Eliminates chiller, air handlers, refrigerant
• No penetrations in tank below fluid level

🔧 MINIMAL MAINTENANCE & REDUCED COST

• No filter, no dust

SCALABILITY

• Supports server rack density increases for future expansion in a compact space

BAC has unmatched experience providing specialized engineered support and design to address the most challenging applications.

WHY BAC?

BAC is proud to be the world's cooling partner. Since 1938, we have been creating sustainable data center cooling, comfort cooling, process cooling, and refrigeration solutions for the most essential and demanding environments on earth. From pioneering cooling products to leading the industry toward a better tomorrow, BAC innovates for the future, so we can all advance together.

EMPOWERING DATA CENTER PERFORMANCE

12,500+
MW DATA CENTERS
in Operation

1,000+
DATA CENTERS
in Operation

950+
GLOBAL PATENTS

500+
GLOBAL REPS

10
MANUFACTURING FACILITIES

Learn more and contact your Sales Representative

BALTIMOREAIRCOIL.COM/DATA-CENTERS

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