



## Plate Heat Exchangers and Cooling Towers

A cooling system consisting of an AHTT Plate Heat Exchanger (PHE) and an open circuit Cooling Tower offers advantages over a closed circuit configuration.

The PHE being a compact, high efficiency, external heat exchanger offers a smaller footprint, lighter installation that can easily be cleaned in a few hours reducing down time.



Reduced installation costs  
Reduced chemical treatment costs  
Reduced maintenance costs

As the PHE is located close to the cooling tower the open cooling tower loop has a comparatively low volume of water, which reduces the cost of water treatment chemicals, the cost of disposal and refill during routine maintenance.

Typically this combination is used in air conditioning systems to protect condensers from fouling or corroding. In industrial processes uses include protection of air compressors, induction furnaces or lasers.

**ISO9001 Quality Certified Manufacture**



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## Other applications for PHEs in HVAC&R

### Pressure breakers:

In all high-rise buildings low pressure air conditioning and heating outlets can be used if a high pressure PHE is utilized to buffer the hydraulic pressures of the high rise.

### Instantaneous Water Heating:

The PHE has a low hold up volume, which enables it to be used as an Instantaneous Water Heater in conjunction with a boiler or hot water circuit.

### Calorifier Coil Replacement:

When the coil in a large storage calorifier corrodes a simple cost effective way to replace it is to use an external PHE to heat the calorifier contents.

### Swimming Pool Heaters:

Compact design and high quality heat transfer surfaces ensure trouble free heating of any size pool. PHE's are used to heat many private and public pools, including the Olympic Pool at Homebush.

### Ice Accumulator Systems:

The design of these systems calls for close approach temperatures to maximise the use of low cost energy. PHE's are the only heat exchangers that can meet these high requirements.

### District Cooling Systems:

These systems are starting to appear in large building complexes where a cooling centre is used to "send out" cooling with a need for PHE's in every building to put a barrier between the circuit and user.

### Heat Recovery:

Any source of warm water can be used to preheat cold water prior to final heating in swimming pools and air conditioning cooling discharge.



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