

Charged Air Coolers

Finned tube coolers(air coolers)

Ate has been manufacturing finned tube coolers for many years.

our air coolers have the following applications:

- air coolers for overcharged diesel engines
- air coolers for electric motors and alternators
- hydrogen coolers for high power alternators
- double-tube air coolers for electric motors and marine engines
- water and oil finned tube air coolers.

Wind generator ac/dc electric motor air-air cooler

Model : ate24-genac

This products have been widely used in wind power generators in india. The special arrangement of tubes lowers the internal wind-resistance, improves the cooling flow of the generator and increase the efficiency.

Use and applications:

- electric-motors and generators
- electrical converter plants
- air pre heating powered by exhaust or waste air
- heat recovery plants for process engineering

depending on the performance data required by the customer or user, several tube designs and arrangements are available:

- round tubes in triangular tube layout
- round tubes in square tube layout
- flat tubes in square tube layout

construction and design

by using different arrangements of tubes (e.g. "w-arrangement") the required performance and the permissible pressure loss can be achieved within the limited size of the heat exchanger.

The tubes are either sealed in the tube plates with a special compound material or fixed into the tube plates by tube expansion.

Depending on the operating conditions, the following tube materials can be used:

- aluminium alloy
- brass and complex brass
- cupro nickel
- steel or stainless steel

Air pre heater

Model : ate40-aph

Ate can design, engineer and manufacture tubular air pre-heaters, typically used for combustion air pre-heating. Rigorously engineered, the air pre-heaters are custom designed for your plant layout. We can handle very high gas temperatures, up to 1,750° f with our refractory lined units.

Pre-cooler

model : ate40-apc

Precoolers are evaporative cooling modules that are used specifically to precool air that is used to cool equipment such as heat exchangers, etc.. Perhaps the best example of how a precooler is used is the conventional air conditioner condenser coil.

This coil is used to dissipate heat to the outside air during the cooling cycle of the air conditioner. Without precooling, the condenser coil uses outside air to dissipate the heat. If that

heat is 120 degrees (f) then the efficiency of the heat transfer is greatly reduced. With precooling, the 120 degree (f) air temperature is reduced to about 90 degrees (f) which greatly improves the efficiency of the heat transfer of the condenser coil.

at lower temperatures across the condenser coil, the air conditioner efficiency improves, the energy use is reduced and the compressor useful life is increased. The air conditioner produces colder air at a lower energy cost.

precoolers save energy costs, improve efficiency of the equipment being precooled and extends useful lifetime of the equipment

Benefits

- 50% lower water use
- Low pressure drop
- Longer pad life
- Lowest life cycle costs
- Temperatures always 1-2°C below wet bulb
- Enhances capacity
- Reduces energy use
- Lowers peak demand
- Reduces condensing temperature
- Extends compressor life
- Keeps condenser coils cleaner
- Reduces condenser noise

Applications

- Air cooled condenser pre cooling
- Dry cooler pre cooling
- Transformer pre cooling

Wind Generator Ac/Dc Electric Motor Air-Air Cooler

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