

## COMPRESSED GAS COOLER



**TEi**  
a Babcock Power Inc. company

**THERMAL ENGINEERING INTERNATIONAL (USA) INC.** (TEi), a Babcock Power Inc.<sup>®</sup> company, is a leading supplier of heat transfer technology to the electric power generation and industrial markets. Backed by more than 100 years experience, we offer fully integrated design, engineering, manufacturing, construction, research and development services; including providing superior products to major manufacturers of compressors worldwide.

TEi designs and manufactures centrifugal compressor intercoolers and aftercoolers. Our Compressed Gas Coolers can remove free moisture with efficiencies up to 99.9%. Additionally, the extended surface provides a large heat transfer area with minimal gas side pressure drop, all within a resourceful compact arrangement.

Whether you are looking for plate fin, bimetallic fin tube, or bare tube, TEi's Compressed Gas Coolers offer high-efficiency and long-term availability.



Compressed Gas Cooler

### MATERIALS

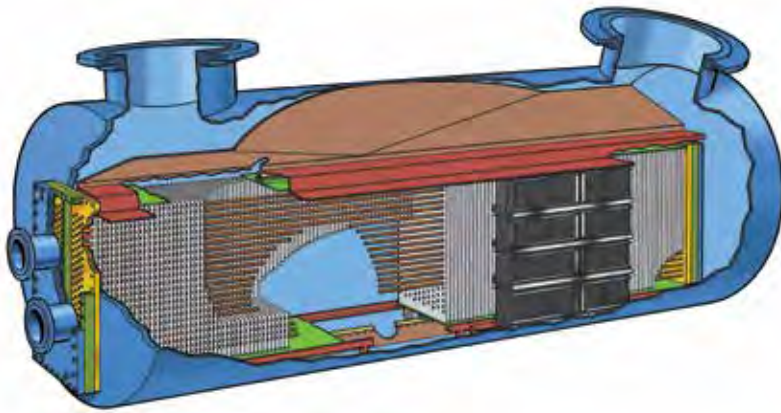
- Tubes: stainless steel, copper-nickel, admiralty
- Fins: copper, aluminum
- Tubesheets: muntz, copper-nickel, aluminum bronze, stainless steel, carbon steel, copper-nickel
- Waterbox: copper-nickel, aluminum bronze, stainless steel, carbon steel
- Sealing strips: synthetic rubber
- Tube supports: carbon steel, stainless steel
- Shell: stainless steel, carbon steel
- Other materials are available to satisfy specific conditions

### OPTIONS

- Mechanically and thermally interchangeable tube bundles
- Condensate pots and traps
- Gas nozzles with couplings to accommodate instrumentation
- Heresite<sup>®</sup> coating on fin
- Victaulic, flanged, lap joint and other connections on nozzles
- Choice of hanger suspension, slab, or pedestal mounting
- Welded or grooved tube joints for improved joint integrity
- Stainless steel bypass sealing strips
- Pre-cooling section for high gas temperatures
- Various internal coatings
- Removable rear cover for easy accessibility to tube bundles
- Double tubesheet design



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#### CERTIFIED SHOP PER THE FOLLOWING:

9001 : 2008

ASME Section I & Section VIII

Chinese Manufacturing License, PED, CRN

National Board U, S, R

Military Standards

IOCFR—Nuclear Non-Safety Related

#### AWARD RECIPIENT

SHARP (Safety & Health Achievement Recognition Program 2009–14)

FM Global Manufacturing Award of Excellence 2009

TECO Westinghouse Blue Diamond Award 2009

Deviation Management System tools to identify, record, analyze non-conformances and improve quality control system.

#### LOS ANGELES HEADQUARTERS

Design teams provide integrated product engineering, resulting in single-point responsibility for design and manufacturing

#### JOPLIN, MISSOURI MANUFACTURING FACILITY

Equipped with sophisticated tooling necessary for the precise drilling of tubesheets and support plates. Large floor and lay-down areas eliminate assembly bottle necks and promote efficient material flow.

- Stationary tubesheet is provided with tapped holes for jacking screws and pulling of the tube bundle
- Directional baffle rotates gas flow to maintain even distribution across the tube bundle
- Shell nozzles are designed and oriented for proper fit-up to the equipment and to minimize gas side pressure drop
- OPTIONAL Removable rear cover provides accessibility to the tube bundle for inspection and maintenance
- Floating head design allows for thermal expansion between heat exchanger elements and support members. Cooling section is free to expand independently of the shell
- Moisture Separator assembly of stainless steel wire mesh can remove free moisture with efficiencies up to 99.9%
- Condensate drains are designed to adequately drain the condensed Sealing strips prevent mixing moisture
- Extended surface provides large heat transfer area with minimal gas side pressure drop, and compact arrangement
- Sealing strips prevent mixing moisture of hot and cooled gas
- Rolled tube joints for superior strength
- Stationary cover, including vent and drain, is removable, providing access for inspection and maintenance
- Water box is designed for counter flow arrangement, maximizing the heat transfer capability

SAFETY<sup>3</sup> PEOPLE. POWER. PROJECTS.

We're giving safety the third degree.

Babcock Power Inc. and its subsidiaries place the safety, health and security of our people at the core of our company values. Our team is our most valuable resource, generating solutions everyday to deliver safe, clean, reliable energy globally. With a keen focus on safety, Babcock Power Inc. conducts business in a manner that protects our people, our customers and the environment. From innovation to generation, we are proud of our award-winning safety record and are committed to operating with integrity and excellence.

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