

# AIR & GAS COOLERS



**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 50 years experience, we offer fully integrated design, engineering, manufacturing, construction, research and development services.

Engineered for optimum economic design and performance, TEi Air and Gas Coolers have been an integral internal component for cooling motors and generators produced by diverse international manufacturers for decades.

Rely on the extensive experience of Thermal Engineering International (USA) Inc. for your Air and Gas Cooler needs.

## MOTOR & GENERATOR COOLERS

- TEi's Motor and Generator Engine Coolers cool air or hydrogen, which in turn cools the internal components of the motor or generator. These coolers are available in single tube, double tube, plate-fin and fin-tube designs.

## CHARGE AIR COOLERS

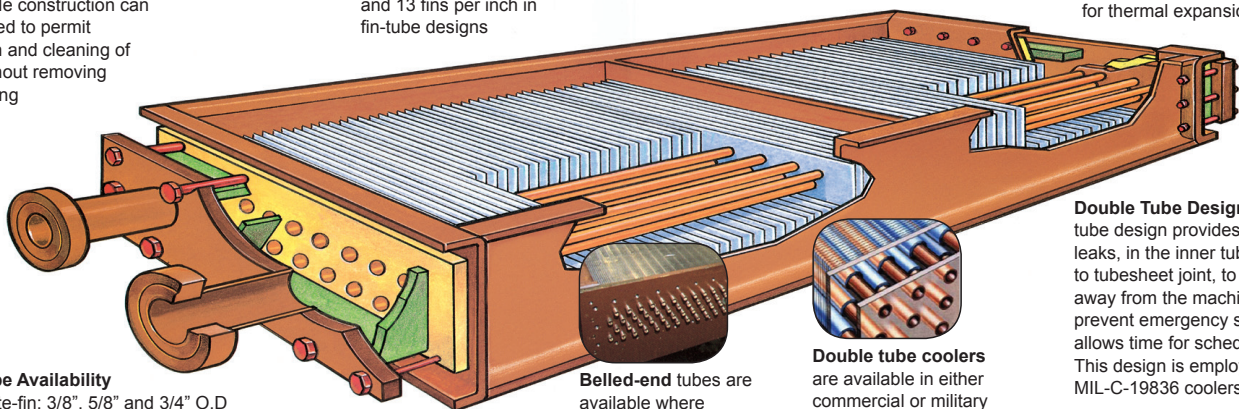
- TEi's Charge Air Coolers enhance performance of stationary engines. Increasing the air mass flow at lower temperatures, these coolers provide higher engine output and cleaner combustion.

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Both in-line and right-angle water connections available. Right angle construction can be provided to permit inspection and cleaning of tubes without removing water piping

Fin counts available up to 20 fins per inch in plate-fin and 13 fins per inch in fin-tube designs

Dowel pin arrangement can be provided to allow for thermal expansion



**Tube Availability**  
Plate-fin: 3/8", 5/8" and 3/4" O.D  
Fin-tube: 5/8" and 1" O.D

**Belled-end tubes** are available where individual tube removal is required

**Double tube coolers** are available in either commercial or military (MIL-C-19836) constructions

**Double Tube Design** TEi's double tube design provides a safe path for leaks, in the inner tube or at the tube to tubesheet joint, to be funneled away from the machine. This helps prevent emergency shutdowns and allows time for scheduling repairs. This design is employed in all MIL-C-19836 coolers



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## FULL RANGE OF HEAT TRANSFER COMPONENT SERVICES

- Feedwater heaters
- Surface condensers
- Moisture separator reheaters (MSRs)
- Engineering & field services

## CODES AND STANDARDS

- ASME – Sections I, II, V, VIII, IX
- Stamps – S, R, U
- Memberships – HEI, ASTM, HTRI

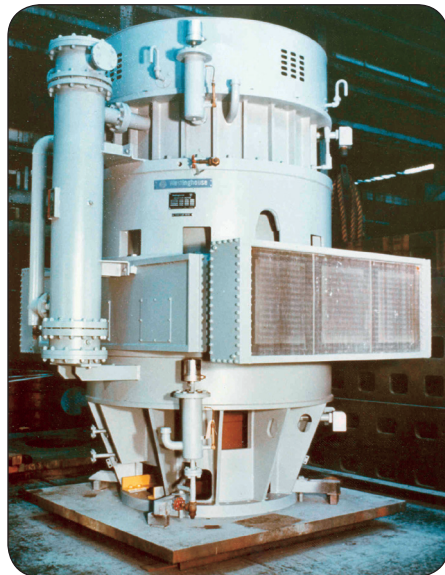
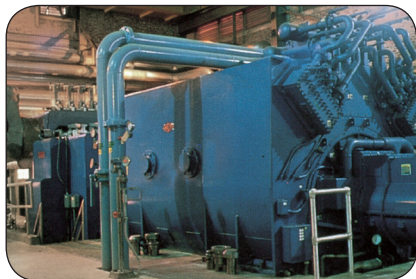
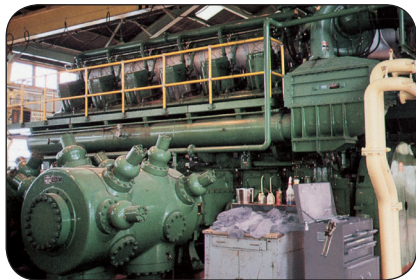
## SERVING OUR CUSTOMERS

### LOS ANGELES HEADQUARTERS

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

### JOPLIN, MISSOURI AND SAPULPA, OKLAHOMA MACHINING CENTERS

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.



## MATERIALS

- Tubes: stainless steel, cu-ni, admiralty, copper
- Fins: copper, aluminum
- Tubesheets: muntz, cu-ni, aluminum bronze, naval brass, stainless steel, carbon steel
- Waterbox: cu-ni, aluminum bronze, valve bronze, stainless steel, carbon steel
- Other materials are available to satisfy specific conditions.

## OPTIONS

- Galvanic protection: Sacrificial anodes are available Units can be constructed to: ASME Section VIII Division 1 (“U” stamp), TEMA standards or TEi standard. We also comply with 10 CFR 50, Appendix B. Repairs and refurbishment can be preformed with a National Board “R” Stamp (Repair) for code units.

### 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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