

# COMPONENT COOLING WATER (CCW) HEAT EXCHANGERS



**TEi**  
a Babcock Power Inc. company

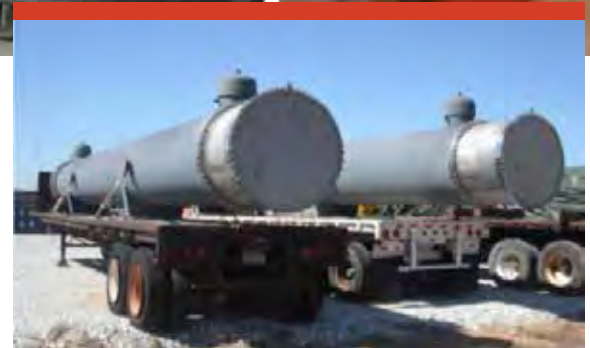
**THERMAL ENGINEERING INTERNATIONAL (USA) INC.** (TEi), a Babcock Power Inc.® company, is a leading supplier of heat transfer technology to the electric power generation and industrial markets. Our Component Cooling Water (CCW) and Balance of Plant (BOP) heat exchangers are the workhorses of the utility industry, designed to efficiently reject heat and maintain critical equipment and plant temperature profiles.

## IMPROVING EFFICIENCY, REDUCING COST

TEi's mission-critical equipment helps ensure a stable, optimal operating temperature while reducing costs and dramatically improving efficiencies for our customers. TEi has successfully supplied numerous optimized BOP and CCW designs for numerous fossil and nuclear power plants undergoing power up-rates and routinely provides solutions for power plants needing to improve efficiencies.

## FULL SERVICE REPUTATION

TEi brings full-service skills and capabilities to its CCW customers, often managing product development and delivery from engineering to production. With three dedicated shops, we have a highly experienced staff and excel at unique product design and development. TEi has earned a global reputation for its vast depth of engineering support, extensive warranty and service provisions, and the dedicated project management that accompanies each TEi product.

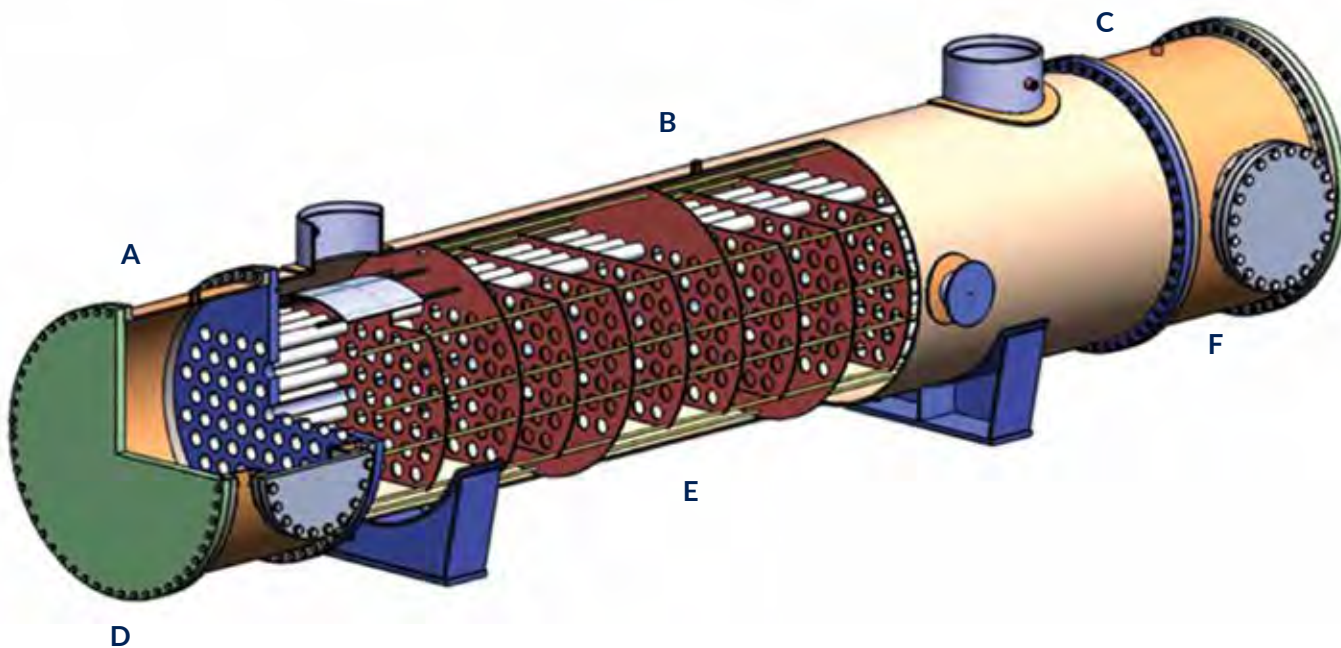


## BENEFITS

- Diverse high-quality applications
- Impressed current & galvanic anodic protection
- Eliminates potential cross-contamination of fluids
- Compact construction when designing for fluids with high thermal resistances
- Can be externally and internally applied

## FEATURES

- Material Applications: Tube materials from stainless steel, titanium, Cu-Ni & other copper alloys, AL-6XN®, Seacure®  
Tubesheet Materials from Carbon Steel: clad and plain, copper alloys, titanium, AL-6XN®, Alloy 2205 & shell / channels from carbon steel, stainless steel, and Alloy 2205
- Galvanic protection
- Double tube / double tubesheet
- Low-finned tubes
- High performance coatings



## TEMA AEL-1P

- A** Shells up to 24" will utilize pipe. Larger vessels will use rolled plate. Annular distributors and expansion joints are incorporated when warranted by design conditions. Plate or rod impingement protection available to mitigate damage due to high fluid entrance velocity.
- B** Fixed Tubesheet Design eliminates additional gasket joint and potential breach. Floating tubesheet design also available with o-ring or packed joint.
- C** Nozzles are ANSI type and comply with design and application requirements. Pipe load reaction analysis available upon request.
- D** Tubes are mechanically rolled into the tubesheets. Grooved and seal welded tube joints are available to enhance integrity of the joint. Mock up tubesheets and joint strength qualification available upon request.
- E** Baffle / Support Optimization enhances heat transfer. Support designs based on vibration analysis and allowable dP.
- F** Mounting Brackets are structurally sound and are designed and manufactured from plate. Seismic analysis available.

## CODES & STANDARDS

- ASME Section VIII Division I and Division II ("U" Stamp)
- HEI Standards for Power Plant Heat Exchangers
- Tubular Exchangers Manufacturers Association (TEMA)
- Nuclear Regulatory Commission 10CFR50 Appendix B
- EU Pressure Equipment Directive (PED)

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.

The data contained herein is solely for your information and is not offered, or to be construed, as a warranty or contractual responsibility.

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