

# VERTICAL FEEDWATER HEATERS



**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. Backed by more than 100 years experience, we offer fully integrated design, engineering, manufacturing, construction, research and development services. Integral to the heat transfer process, TEi is a leader in feedwater heater design, including vertical feedwater heaters.

Full-length venting systems, control of incoming drains, thermal loading, proper liquid level control and other parameters play important roles in the proper management of your feedwater system. Whether the ideal feedwater heater for you is a vertical channel down or vertical channel up design, TEi provides innovative and practical concepts to ensure peak heater performance from installation to testing through full or part load operation.



Feedwater Heaters

## BENEFITS

- Vibration analysis of desuperheating and drain cooling zones for normal and overload conditions
- Efficient venting system
- Numerous channel design option with gasketed or welded closure
- Desuperheating zone is designed to provide maximum exit drywall temp
- Drain cooling zone is designed to provide low friction loss, conservative flash margin rapid zone flooding and generous end plate thickness

Vertical channel down feedwater heaters are particularly unique in terms of their distinct regions or zones plus areas of ineffective or flooded surface. Steam ducts, which isolate up-flowing steam from the condensate flow, are essential in preventing steam bypassing. TEi will take these and other issues into consideration when designing VCD feedwater heater systems.





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## SERVING OUR CUSTOMERS

TEi provides feedwater heaters for conventional fossil generation, solar, biomass, nuclear, IPP/NUG/Co-Gen technology and programs utilizing advanced cycle configurations. TEi facilities are dedicated exclusively to the manufacture of heat transfer equipment for power plant and process industries. Our organization's advanced programs ensure compliance with the highest quality requirements at our U.S. facilities and licensed overseas operations.

## 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.

## 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.



## FULL RANGE OF HEAT TRANSFER COMPONENT SERVICES

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

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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