

Course Fee: US\$650

Learn the fundamentals of boiling mechanisms and how they apply to reboiler designs. This course provides an overview of selected reboiler configurations with an emphasis on recirculating thermosiphon reboilers and kettles. We will develop accurate thermosiphon and kettle models using *Xist*, identify design guidelines based on current research, and discuss reboiler piping specifications in *Xist*.

Key Topics

- Pool boiling mechanisms including nucleate boiling and film boiling
- Intube flow boiling mechanisms for horizontal and vertical configurations
- Boiling mixtures
- Two-phase pressure drop

Suggested Participants

Engineers who design and evaluate reboilers

HTRI Software

This course will make use of the following HTRI software: *Xchanger Suite*® components *Xist*® and *Xvib*®. All training materials are based on the current software version.

Course Credits: 6 hours (PDH/CEU)

Outline

- I. Reboiler Selection
 - Types of reboilers
 - Operating characteristics
 - Heat transfer methods

- II. Thermosiphon Models
 - *Xist* thermosiphon methods
 - Specification of fluid properties and heat release
 - Piping specification
 - Thermosiphon operating concerns

- III. Kettle Reboilers
 - *Xist* kettle methods
 - Evaluating results