

Petrogenium. Academy

Process Technology

TEMA & HTRI Heat Exchanger Design & Cost Saving Masterclass

Consultant / Trainer

Bert Boxma



This Masterclass can be tailored to a specific client's needs. Built from a series of chosen modules, the Masterclass can provide an in depth practical understanding of major proven heat exchanger technologies and "state of art" fouling mitigation technologies. Pro's and Con's of several heat exchanger types can be explained with life operational examples. The Masterclass will mix theory and common practices using highly interactive case studies where attendees are encouraged to use inhouse heat exchanger type selection software and rigorous design/rating world-class software from HTRI.



Participants

This **Petrogenium**. course can be tailored for awareness/inexperienced staff, for intermediate and for experienced personnel. Furthermore, the course can be customized for a specific refinery, plant or unit. The option for post-course consultancy/help-desk support is also available.

Participants could include a wide range of Technical Professionals who want to improve the performance of heat exchanger in their company for shell & tube and compact types but will greatly benefit:

- Engineers in disciplines Process, Mechanical, Project acting as specialist or generalist.
- Design Specialist in heat exchanger & heat Transfer Engineers to extend their knowledge HTRI; specific Engineers in various disciplines; Maintenance, Instrument, Turn-Around, & Cost Estimating

Programme

Module 1 – Shell & Tube HX

- Heat Exchanger Overview
 - Shell & Tubular Discussion
 - Stream Analysis
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Module 3 – Shell & Tube HX

- Tube-Tubesheet connection
 - Tube vibration
 - Examples & remedies
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Module 5 – Shell & Tube HX

- Removable bundles
 - (U-tube, Floating Heads and Texas Towers)
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Module 7 – Shell & Tube HX

- Tube varieties
 - Twisted tube or High fFux tube
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Module 9 – Air Cooled HX

- Tube application & selection
Process application

Module 2 – Shell & Tube HX

- Deep dive Shell & Tube heat exchanger
 - TEMA nomenclature
 - Case studies
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Module 4 – Shell & Tube HX

- High velocity protection
 - Impingement plate or rods implementation
 - Cost savings
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Module 6 – Shell & Tube HX

- Shell side aspects
 - Tube support in different systems
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Module 8 – Shell & Tube HX

- Operational aspects
 - Use of tube inserts
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Module 10

- Double pipe or Multi Tube Hairpin HX
Process Application

Module 11 – Plate & Frame Gasketed HX

- Process application & experiences

Module 12 – Other HX Types

- Spiral plate, Plate in Shell, Packinox,
- Spiral Coil, Printed Circuit and Braised Aluminium

Module 13 - No Steam HX

- Electrical heater, Submerged
- Combustion Vaporizer, Open Rack
- Vaporizer and others

Why select Petrogenium.?

The above support will be provided by principal consultants with 30+ years world-class experience in the technology and hands-on know-how from operation of refinery units.

Contact Petrogenium.:

Email: training@petrogenium.com

Website: <https://www.petrogenium.com/training/>

Because Experience Matters