

VIRTUAL TRAINING

Fired Heaters For General Refinery Service

Maximize your API 560 Knowledge with Practical Examples and Case Studies from the Expert!

09th - 12th June 2025 | 01st - 04th December 2025 at 09:00 AM - 17:00 PM (GMT +8)



PetroSync Distinguished Instructor
M. Bassem Tolba
Fired Heater Expert - Tolba Management Consulting

A lot of
Practical Things,
Case Studies
and Exercises!

- He managed as President of a manufacture and consultant ABB Lumus Heat Transfer which is the worldwide leader in heat transfer equipment including fired heaters and TEMA exchangers.
- For over 40 years, he directly and supervised his former team in design, engineer and supply to the worldwide market over 5.000 heaters and over 25.000 exchangers to the Refining, Petrochemical & Chemical industries supervised.
- He co-authored several publications and holds US Patents.

WHY YOU SHOULD ATTEND PETROSYNC'S EVENTS

- To ensure that all objectives of the course matches yours, all PetroSync programs are developed after intensive and extensive research within the industry
- PetroSync programs focus on your immediate working issues to ensure that you are able to apply and deliver immediate results in real work situations
- Application and implementation of industry knowledge and experience are the drivers for our course design, not theoretical academic lectures
- PetroSync training focuses on practical interactive learning tools and techniques including case studies, group discussions, scenarios, simulations, practical exercises and knowledge assessments during the course. Invest a small amount of your time to prepare before attending the course to ensure maximum learning
- PetroSync follows a rigorous selection process to ensure that all expert trainers have first-hand, up-to-date and practical knowledge and are leaders of their respective industrial discipline

Fired Heaters For General Refinery Service Virtual Training

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Course Overview

The seminar is a comprehensive course for the fired heater technology for refinery and petrochemical industries. The participants will acquire the knowledge and /or enhance their experience in the design, engineering, inspection, installation, operations, maintenances and troubleshooting.

The course is more for the practical side than the theoretical. The approach to the training will be to transmit the technology and knowledge of the fired heaters by going through the requirement of fired heaters Standard. As such, the Participants Learn fired heaters standard and its applications at the same time.

Course Objectives

- Enhance the experience of the participants in their prospective field/specialty while learn about the job of the other specialties involved in the project.
- Minimize initial and operating costs while maintaining a high quality product with a minimum turn down.
- Transmit the technology and knowledge of the fired heaters and the requirement.
- Cleary define the responsibility of each involved Party (Purchaser, Vendor, Contractor, etc).
- The ultimate objective is to make the participant smart Buyer and better Operator.

Specially Designed For

This course is designed for:

- Planning,
- Engineering,
- Process Engineering,
- Design,
- Project Engineering & Management,
- Operation and
- Maintenance

Each attendee must bring a **Scientific Calculator**.

PROGRAM SCHEDULE

08:00	Registration (Day1)
08:00 – 10:00	Session I
10:00 – 10:15	Refreshment & Networking Session I
10:15 – 12:30	Session II
12:30 – 13:30	Lunch
13:30 – 15:00	Session III
15:00 – 15:15	Refreshment & Networking Session II
15:15 – 16:00	Session IV
16:00	End of Day

*Schedule may vary for each training

HYBRID TRAINING SOLUTIONS

FOCUS TRAINING • REDUCE COST • ENHANCED RESULTS

Over the years, there has been a growing demand for hybrid training programs. It is an excellant option to maximize your training dollar for your specific training needs. We make it possible to run a training program that is customized totally to your training needs at a fraction of an in-house budget!

If you like to know more about this excellent program, please contact us on +65 3159 0800 or email general@petrosync.com

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Training Agenda

The outline will follow the “Contents” of Fired Heaters standard. That is, Fired Heaters is covered in each item of the outline. Examples and case studies will also be covered in most of the following items.

Day 1 :

- Heater Types – By Configuration (Structural, tube coil and burners)
- Heater components
 - Heater Type – By Process (Selection Criteria)
 - Case Study - Applications (Hot Oil, Crude, Vacuum, DelayedCoker, Visbreaker, Reformer, Hydrocrackers, Steam Reformers, Ethylene Cracking Heaters)

Day 2 :

- Codes, Standards, Specifications and regulations
 - Minimum Data Required for the Design
 - Design Considerations
 - ▶ Process
 - ▶ Combustion
 - ▶ Mechanical
 - Conceptual Design
 - ▶ Radiant Section and Recommended Heat Flux
 - ▶ Convection Section
 - ▶ Coils, Tubes, Extended Surface, Tube Supports,
 - ▶ Refractory and Insulation
 - ▶ Stack
 - ▶ Burner Selection
- Case Study – Thermal Design of Fired Heater. This will be covered by hand calculations so that the participants learn the effect of all the variables.

Day 3 :

- Case Study – Calculation of Tube Wall Thickness, Insulation Thickness, Stack Dimensions
- Auxiliary Equipment
 - ▶ Sootblowers
 - ▶ Airpreheaters
 - ▶ Fans and Drivers
- Instruments and Auxiliary Connections
- Shop Fabrication and Field Erection

Day 4 :

- Case Study – Air preheater and Ducts design
 - Inspection, Examination and Testing
 - Optimization - Initial and operating costs (Increasing Heater Efficiency) & Schedule
 - Bid Evaluations
- Case Study – Process Debottle Necking.

▶ Petrosync Quality

Limited Attendees

The course has limited seats to ensure maximum learning and experience for all delegates.

Certificate of Attendance

You will receive a Certificate of Attendance bearing the signatures of the Trainer upon successful completion of the course. This certificate is proof of your continuing professional development.

Interactive Training

You will be attending training designed to share both the latest knowledge and practical experience through interactive sessions. This will provide you with a deeper and more long-term understanding of your current issues.

High Quality Course Materials

Softcopy course will provide you with working materials throughout the course and will be an invaluable source of reference for you and your colleagues afterward.

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Petrosync Distinguished Instructor

M. Bassem Tolba

Fired Heater Expert - Tolba Management Consulting

Bassem Tolba is former President of a manufacture and consultant ABB Lumus Heat Transfer which is the worldwide leader in heat transfer equipment including fired heaters and TEMA exchangers. For over 40 years, he directly and supervise his former team in design, engineer and supply to the worldwide market over 5.000 heaters and over 25.000 exchangers to the Refining, Petrochemical & Chemical industries.

He also introduced to the market proprietary heaters and exchangers with superior performance that can only be supplied by his consultant. Bassem also provided solutions for the problems encountered by the clients.

Most probably, each refinery or Petrochemical plant in the world have one or more his former consultant's fired heater.

He had worked and lived in five continents helped him to bridge the gap between many cultures, which is required for the globalization of the business.

➔ Partial Client List

- | | |
|--|--|
| <ul style="list-style-type: none"> ◦ Aramco ◦ BASF ◦ Petrobras ◦ Petronas ◦ Petronas Penapisan ◦ BP SECCO, SINOPEC ◦ Chennai Petroleum Corp. (CPCL) ◦ Shell ◦ Shell Chemie (SNC) ◦ Shell Saraya ◦ Shell Singapore LTD ◦ CNOOC, Shell ◦ Petro Canada ◦ CP CHEM ◦ CTCI ◦ Dong Generation Norge A/S ◦ Dreyfuss ◦ EC Eedoelchemie ◦ EMSB ◦ Ethydco ◦ Formosa Petrochemicals Corp. ◦ Fortum ◦ FPC ◦ GGSRL Bathinda ◦ GS Caltex ◦ IOCL ◦ KNPC | <ul style="list-style-type: none"> ◦ KPE ◦ Korea Petrochemical Industry Co Ltd ◦ LG Chem LTD, Yeosu ◦ Lotte Daesan - Honam PC ◦ Lotte Yeosu - Honam PC ◦ Lukoil Perm ◦ Mangalore Ref. & Petroch. (MRPL) ◦ NagarJuna Oil Corp. LTD (NOCL) ◦ Nizhnekamskneftekhim ◦ NKNK ◦ Orpic ◦ PKN ◦ Premcor ◦ PTT Polyethylene Co., Ltd ◦ Rio Polimeros ◦ ROC ◦ Rosneft ◦ Salavat ◦ Samsung Atofina ◦ SCANRAFF ◦ Shintech ◦ SINOPEC, Maoming ◦ SK corporation ◦ Sohar ◦ Tuymen Oil ◦ Yanpet ◦ Yanbu Petrochemical Company ◦ And Many More |
|--|--|

IN-HOUSE SOLUTIONS

SAVE COST • IMPROVE PERFORMANCE • REDUCE RISK

PetroSync understands that in current economic climate, getting an excellent return on your training investment is critical for all our clients. This excellent training can be conducted exclusively for your organization. The training can be tailored to meet your specific needs at your preferred location and time. We will meet you anywhere around the globe.

If you like to know more about this excellent program, please contact us on +65 3159 0800 or email general@petrosync.com

INVESTMENT PACKAGES

Please checklist the package that you are attending!

Fired Heaters for General Refinery Service Virtual Training SCHEDULES	Time	Price
<input type="checkbox"/> 09 th - 12 th June 2025	09:00 AM - 17:00 PM (GMT +8)	USD 3,995
<input type="checkbox"/> 01 st - 04 th December 2025		

* All prices are subject to change without notice and are not guaranteed, except that prices for an order that have been accepted by PetroSync is not subject to change after acceptance

* Price is nett excluding Withholding Tax if any and will be quoted separately. Please send us the withholding tax payment receipt.

DELEGATE DETAILS

1st Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

2nd Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

3rd Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

4th Delegate Name _____ Mr Mrs Ms Dr Others

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

*Please fill all the details including mobile number. This help us to contact participant if they are late in class or if there is any urgent update (through whatsapp/call)

INVOICE DETAILS

Attention Invoice to: _____

Direct Line Number: _____ Fax: _____

Company: _____ Industry: _____

Address: _____ Postcode: _____

Country: _____ Email: _____

Please note:

- Indicate if you have already registered by Phone Fax Email Web

- If you have not received an acknowledgement before the training, please call us to confirm your booking.

PAYMENT METHODS

By Credit Card

By Direct Transfer : Please quote invoice number(s) on remittance advice

PetroSync Global Pte Ltd Bank details:

Account Name : PetroSync Global Pte Ltd

Bank Name : DBS Bank Ltd

Bank Code : 7171 • Bank Swift Code : DBSSSGSGXXX • Branch code : 288

Account No : 0288-002682-01-6-022 (USD)

Bank Address : 12 Marina Boulevard, Level 3. Marina Bay Financial Centre Tower 3. Singapore 018982

All bank charges to be borne by payer. Please ensure that PetroSync Global Pte Ltd receives the full invoiced amount.

COURSE CONFIRMATION

I agree to PetroSync's terms & conditions, payment terms and cancellation policy.

Signature : _____

Date : _____

Payment Terms : Payment is due in full at the time of registration. Full payment is mandatory for event attendance.

PROGRAMME CONSULTANT

Name : Cay Aagen

Email : registration@petrosync.com

Phone : +65 3159 0800

TERMS AND CONDITIONS

DISCLAIMER

Please note that trainers and topics were confirmed at the time of publishing; however, PetroSync may necessitate substitutions, alterations or cancellations of the trainers or topics or location (classroom / Virtual). As such, PetroSync reserves the right to change or cancel any part of its published programme due to unforeseen circumstances. Any substitutions or alterations will be updated on our web page as soon as possible.

DATA PROTECTION

The information you provide will be safeguarded by PetroSync that may be used to keep you informed of relevant products and services. As an international group we may transfer your data on a global basis for the purpose indicated above. If you do not want us to share your information with other reputable companies, please tick this box

CANCELLATION POLICY

Delegates who cancel after the training is officially confirmed run by email, are liable to pay the full course fee and no refunds will be granted. You may substitute delegates at any time as long as reasonable advance notice is given to PetroSync.

In the event that PetroSync cancels or postpones or change the trainer or change the training location (classroom / virtual) of an event for any reason and that the delegate is unable or unwilling to attend in on the rescheduled date, you will receive a credit voucher for 100% of the contract fee paid. You may use this credit voucher for another PetroSync to be mutually agreed with PetroSync, which must occur within a year from the date of postponement.

PetroSync is not responsible for any loss or damage as a result of the cancellation policy. PetroSync will assume no liability whatsoever in the event this event is cancelled, rescheduled or postponed due to any Act of God, fire, act of government or state, war, civil commotion, insurrection, embargo, industrial action, or any other reason beyond management control.

CERTIFICATE OF ATTENDANCE

80% attendance is required for PetroSync's Certificate of Attendance.

DETAILS

Please accept our apologies for mail or email that is incorrectly addressed.

Please email us at registration@petrosync.com and inform us of any incorrect details. We will amend them accordingly.

Find us on Social Media:

 PetroSync Global Pte Ltd

 PetroSync

 PetroSync

CHARGES & FEE(S)

- For Payment by Direct Telegraphic Transfer, client has to bear both local and oversea bank charges.

- For credit card payment, there is additional 4% credit card processing fee.