



NOVEMBER 16TH – 17TH, 2022
PASADENA CONVENTION CENTER
PASADENA, TEXAS

THE HEAT IS ON 2022

#HEW2022

ADVANCE CONFERENCE PROGRAM

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DAY ONE - Wednesday, November 16th, 2022

10:00 AM	Keynote 1	<i>Chairman's Welcome</i> – Scott Hamilton, Hex Technology
10:30 AM	Keynote 2	<i>Industrial Revolution 2.0 – Renewable Energy – ESG</i> – Tim Goedeker, formerly of Phillips 66
11:00 AM	Keynote 3	<i>Overview of the TEMA Standard</i> – Wade Armer & Sangeeta Bakshi - TEMA

11:30 AM Expo & Coffee Break

Vendor Discussion Panel
The Good, the Bad & the Ugly of: TEMA, API 660 & 661, PCC-1, and End User Specs

Session Chair: Scott Hamilton, Hex Technology

Panelists will provide an overview and discuss experiences working with different heat exchanger design standards & specifications. Audience members will be provided with the opportunity to ask questions and participate in this panel discussion that will cover the good, the bad & the ugly of TEMA, API 660 & 661, PCC-1 and various end user specifications.

Presentations:

- Chris Jungers – General Manager - Air Cooled Heat Exchangers, Cust-o-Fab
- Mark Ruffin – Technical Director, Teadit North America
- Jamal Jamalyaria – Director of Engineering, Flexitallic
- Ben Lambers – Engineering Manager, Elliott Tool Technologies
- Peter Dunn – Dunn Heat Exchangers
- Jay Hennessey – TEMA Technical Committee/VP of Estimating and Engineering, Brask, Inc.
- Wade Armer – TEMA Technical Committee/Vice President of Engineering, Ohmstede, Ltd.
- Bill Ashenhart – Heat Transfer Engineer, S&B Engineers & Constructors

1:30 PM – 2:30 PM Lunch

2:30 PM-4:30PM	Workshop Tube to Tubesheet Joints	Workshop Maintenance, Antifouling & Cleaning
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	<p>Session Chair: Kyle Dunn, Dunn Heat Exchanger</p> <p>Design engineers have basically two weld options for a tube-to-tubesheet joint: 1) roll or expand (with grooves milled in tube holes) and seal welded, or 2) strength welds (no grooves required). Each type of joint has advantages and disadvantages; regardless of which type you choose, it is crucial to use a welding technique that achieves consistent quality.</p> <p>Presentations:</p> <ul style="list-style-type: none"> • <i>Tube to Tube Joint Heat Exchanger Tube</i> – Yong-Joo Kim, Webco • <i>Parallel Pin Rolling</i> – Chris Grice, Ward Vessel & Exchanger • <i>Field Tube Sample Removal and Replacement</i> – Eric Tinnerman & Joey Brock, Equipment Group International • <i>Shell and Tube Heat Exchangers: Benefits and Step by Step Guide to Convert a Floating Head Bundle to a U-Bundle Design</i> – Dinesh Bakshi, Brask Inc. • <i>Innovative Tube to Tubesheet Sealing Mechanisms for Improved Reliability and Maintainability</i> – Joan Bova, CGThermal 	<p>Session Chair: Shailendra Seecharan, Alfa Laval</p> <p>Fouling affects basically all types of heats exchangers in all industries. It not only hinders plant capacity and increases energy consumption, but it can also lead to mechanical failure. The costs associated with fouling are in the millions of dollars range for many businesses, mainly due to maintenance and energy losses. In this workshop, experts will discuss advances in fouling mitigation, ways maintenance can prevent issues, cleaning technologies, performance monitoring, and understanding of fouling mechanisms.</p> <p>Presentations:</p> <ul style="list-style-type: none"> • <i>Designing for Less Fouling</i> - Shailendra Seecharan, Alfa Laval • <i>Root Cause Analysis of Ammonia Effluent Cooler / BFW Steam Generator</i> – Jerry Zhang, KBR • <i>Heat Exchanger Tube Material Response to High Pressure Waterjet Impact & the Factors Affecting the Risk of Damage During the Cleaning Process</i> – Frank G. Romito, StoneAge • <i>Self Cleaning Fluidized Bed Heat Exchanger Technology</i> – John Paranesse, Taprogge
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5:00 PM Networking Reception - Cook off - Spazmatics Party

DAY TWO - Thursday, November 17th, 2022

10:00 AM	Keynote 4	<i>Vice-Chairman's Welcome - Impact of "US Longterm Strategy for Pathways to Net Zero by 2050" on Heat Transfer</i> - Naomi Jabbari, S & B Engineers & Constructors
10:25 AM	Keynote 5	<i>Fabrication of Heat Exchanger Alloy Materials</i> – Fred Schweighardt, Airgas, an Air Liquide Company
10:50 AM	Keynote 6	<i>Houston Economic Alliance Port Region Project Update</i> – Chad Burke, Economic Alliance Houston Port Region

11:15 AM Expo & Coffee Break

12:00 PM – 1:30 PM	Workshop Design & Materials	Workshop New Technologies
	<p>Session Chair: Lauren Moran, HTRI</p> <p>Thermal design requires an experienced professional, adequate software tools, and thorough understanding of process conditions. For a shell and tube heat exchanger, for example, the number of possible combinations of materials, geometries, and heat transfer possibilities can baffle a newcomer to the industry. It is critical that during the design phase, materials selection takes into account how the equipment is going to be fabricated, as some materials add more layers of complexity to fabrication more challenges than others (titanium, for example). This workshop will discuss some of typical challenges encountered by designers and fabricators, while also displaying showcases of new technologies that can help in overcoming them.</p> <p>Presentations:</p> <ul style="list-style-type: none"> • <i>CFD Analysis on Boiling Inside Vertical U-Tube Waste Heat Boiler</i> – Shiliang Zhan, KBR • <i>Heat Exchanger Tubes in Super Austenitic Stainless steels, a Choice Between Duplex Steels and High Nickel Alloyed Steels for Wet Corrosion</i> – Venkat Ramesh, Tubacex • <i>Evaluation of Impact of Cold Deformation on Duplex, UNS S32205, Super Duplex, UNS S32750, and Super Austenitic UNS N08935 Grades for use in Chloride and Sour Environment</i> – Luiza Esteves, Alleima • <i>Graphite Compound - The Perfect Solution for Heat Transfer Surfaces in Corrosive Environments</i> - Markus Swetlik, Technoform 	<p>Session Chair: Mayra Lomas, S&B Engineers & Constructors</p> <p>This workshop will highlight new technologies impacting the heat transfer industry.</p> <p>Presentations:</p> <ul style="list-style-type: none"> • <i>Heat Exchanger Fleet Improvements for Energy Efficiency of Crude Distillation Units</i> – Nathan Barnett, Koch Engineered Solutions & Rob Chang, ExxonMobil • <i>Heat Transfer for Carbon Capture Projects</i> – James Suchy, Alfa Laval • <i>Vapor Infusion Technology to Reduce Heat Exchanger Fouling</i> – Mike Radicone, HTRI • <i>Internally Enhanced Heat Exchanger Tubing: A New Technology for Improved Efficiency</i> – Craig Thomas, Neotiss

1:30 PM – 2:30 PM Lunch

2:30 PM – 4:30 PM	Workshop Other Types of Heat Exchangers	Workshop Bolted Joints
	<p>Session Chair: Chris Jungers, Cust-O-Fab</p> <p>Fouling affects basically all types of heats exchangers in all industries. It not only hinders plant capacity and increases energy consumption, but it can also lead to mechanical failure. The costs associated with fouling are in the millions of dollars range for many businesses, mainly due to maintenance and energy losses. In this workshop, experts will discuss advances in fouling mitigation, ways maintenance can prevent issues, cleaning technologies, performance monitoring, and understanding of fouling mechanisms.</p> <p>Presentations:</p> <ul style="list-style-type: none"> • <i>Antiquated Heat Exchanger Designs Hindering Today's ESG Initiatives</i> – Chris Jungers, Cust-O-Fab • <i>Fin Fan Design & Maintenance</i> – Brian Parker, Tex Fin 	<p>Session Chair: Scott Hamilton, Hex Technology</p> <p>Bolted joints play a critical role for performance and safety of pressurized equipment such as heat exchangers. Despite this, many end users and maintenance technicians fail to understand how they work and how many parameters are involved in a reliable bolted assembly - amount of torque applied to nuts, nut friction, type of gasket used, the size of the studs/nuts/flanges, the type of equipment used for tightening, the calibration of the torquing equipment, flange face alignment, and torquing sequence, to name a few. In this workshop, we will explore best practices for bolted joints assemblies, the importance of training for assuring consistent torquing practices, and discuss and some root causes of joint failure.</p> <p>Presentations:</p> <ul style="list-style-type: none"> • <i>PCC-1 Update – Troubleshooting, Appendix O, etc. & Bolting Demo</i> – Scott Hamilton, Hex Technology • <i>Relaxation of the Bolted Flange Joint</i> – Robert Taylor, 3S Gaskets • <i>High Temperature Gasket Technologies</i> – Mark Ruffin, Teadit • <i>Solving Difficult Cases of Thermal Expansion</i> – Jamal Jamalyaria, Flexitallic

FLOORPLAN

	101 EFCO	201 Technoform Heat Transfer Solutions	301 TEI	401 Koch	501 SS Superior Sealing Services	601 USA Industries	701 Heat Transfer Tubular Products	801 Chem Fabrication	901 Aqua Drill	1001 Acuren	
102 AstroArc Polysoude											1002 CRW Distribution & Consulting
103 FQE Chemicals											1003 Nippon Yakin
104 AD Tubi		202 Carbnet Coatings	302 Valtronic	402 Superior Plant Rentals		602 Dunn Heat Exchangers		802 Patriot Bolt & Supply	902 Thomas C. Wilson		1004 Climax Portable
105 Hahn & Clay											1005 Master-Lee Energy
106 Hytorc		203 Flexitallic						803 Teedit			1006 Shuttlerlift
107 Curtiss Wright											1007 Synalloy Metals
108 Tritorc Pipeline Solutions											1008 Alabama Heat Exchanger
109 Southern Heat Exchanger		204 Tee Fin Inc.	304 GMM Pfaudler List	403 Ohmstede		603 Custofab		804 Wald Vestal & Exchange	904 Equipment Group		1009 CG Thermal
110 Neotiss											1010 Omega Thermo Products
111 Stone Age Tools		205 Cookers Resources	305 Elliott Tool Technologies	404 Stainless Bend	504 Blask Inc.	604 CleanCo Systems	704 Webco Industries	805 HC Thermal	905 Bendall Tank & Heat Exchanger		1011 Ecutec
112 Integra Technologies											1012 E. Bachiller
				405 Delta Tee International			505 Taprogge	605 Gulf Coast Exchanger			