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**Training
Success**



at the





































CAROTEK® 2025

PROCESS SOLUTIONS SUMMIT




Oct. 15th - 16th

carotek.com

704.844.1100

Room No.		Time Slot				
		A.M.			P.M.	
		8:45 - 9:45	10:00 - 11:00	11:15 - 12:15	1:30 - 2:30	2:45 - 3:45
		Class No.				
1	Wednesday Only	Endress+Hauser   PEPPERL+FUCHS				
	Thursday Only	 C016 What is Ethernet APL	C017 APL Infrastructures	C018 Asset Management with Ethernet APL	C019 Vendor Portfolios Hands-On Network Dia. Web Tools	C020 APL Panel Discussions and Q&A
2	Wednesday Only	 Endress+Hauser C003 E+H Making Waves in Process Automation	 C012 Hose Selection & Safety	 Endress+Hauser C007 Precision in Every Pour	 C023 Dust Busters	
	Thursday Only	 C001 Seal the Deal	 C036 Vacuum Doesn't Suck Pressure Pushes	 C040 The Three S's of Insulation	 C014 Powering the Future	 Endress+Hauser C008 A Look Inside the Chemical Industry
3	Wednesday Only	 C032 Get in Gear-Hands On	 C037 Seal Your Fate		C041 Filter Smarter	 C034 Welcome to the Wide World of AODD Pumps
	Thursday Only	 C031 Pump It Up	 C030 Top 10 Ways to Kill Your Pump	 C033 Cracking the code: Why do you need Hygienic Pump	 C024 Bend It Like a Pro	
4	Wednesday Only	 C035 Steam Puzzle - Ages 12 and UP		 C013 Heat Trace in Action	 C010 Gas Detection Demystified	
	Thursday Only	 C029 Cyber Securing Your OT Product Process	 C021 Choosing the Right Valve	 C038 Mary Poppins 2025	 C026 Addressing Challenges in the Chemical Industry	 C015 Turning up the Heat
5	Wednesday Only	 Endress+Hauser C004 Vortex Power	 C028 Process Safety	 C039 Pump Performance with VFD's	 C022 Built to Last: Smart Valve Solutions	 C027 Plant-Wide Control and Optimization
	Thursday Only	 C002 Gas Leaks Tell a Story	 Endress+Hauser C005 A Practical & Safety Driven Approach to Temp Mea.			 C025 Digital Transformation
6	Wednesday Only	 Endress+Hauser C009 Radar Risk Reduction: The Proper Selection				
	Thursday Only	 C006 From Lab to Line: Real Time Process				
7	Wednesday Only	 C025 Digital Transformation				
	Thursday Only	 C025 Digital Transformation				

Class#	Title	Info on
Table of Contents		
C001	Seal the Deal: Boost Accuracy & Equipment Life with Diaphragm Seals	Page 3
C002	Gas Leaks Tell a Story - We're Here to Decode It	Page 3
C003	Making Waves in Process Automation	Page 3
C004	Vortex Power: Smarter Sensors, Stronger Control	Page 3
C005	A Practical & Safety-Driven Approach to Temperature Measurement	Page 3
C006	From Lab to Line: Real-Time Process Insight with pH, ORP, Conductivity & DO	Page 3
C007	Precision in Every Pour: Smart Instrumentation for Dairy, Beverage & Brewing	Page 3
C008	A Look Inside the Chemical Industry with Raman Spectroscopy	Page 3
C009	Radar Risk Reduction: The Role of Proper Selection, Beam Angles, Mapping and Tank Geometry	Page 3
C010	Gas Detection Demystified: Choosing the Right Tech for Safer Operations	Page 4
C011	On the Move: Advancing Safety with Mobile Gas Detection	Page 4
C012	Hose Selection & Safety in the Chemical Industry: A Practical Guide	Page 4
C013	Heat Trace in Action: Protect Your Pipes Like a Pro (Hands-on)	Page 4
C014	Powering the Future: Why Medium Voltage Means Smarter Manufacturing	Page 4
C015	Turning Up the Heat: Electrifying the Future of Industry	Page 4
C016	What is Ethernet APL?	Page 4
C017	APL Infrastructures	Page 4
C018	Asset Management with Ethernet APL	Page 4
C019	Vendor Portfolios, Hands-On, Network Diagnostics / Web Tools	Page 5
C020	APL Panel Discussion and Q&A	Page 5
C021	Choosing the Right Valve: What Do You Really Need?	Page 5
C022	Built to Last: Smart Valve Solutions for Tough Conditions	Page 5
C023	Dust Busters: Industrial Edition	Page 5
C024	Bend it Like a Pro: Hands-On Tube Bending Training	Page 5
C025	Digital Transformation: From Smart Instruments to Smart Manufacturing	Page 5
C026	Addressing Challenges in the Chemical Industry - Driving Operational Efficiency	Page 5
C027	Plant-wide Control and Optimization with PlantPAX	Page 6
C028	Process Safety	Page 6
C029	Cyber Securing Your OT Production Process	Page 6
C030	Top 10 Ways to Kill Your Pump	Page 6
C031	Pump It Up: Hands-One ANSI Pump Rebuild Workshop	Page 6
C032	Get in Gear: Hands-On Pump Rebuild & Analysis	Page 6
C033	Cracking the code: Why do you need a Hygienic Pump?	Page 6
C034	Welcome to the Wide World of Air Operated Double Diaphragm (AODD) Pumps - AODD Pumps 101 - Hands On Training	Page 7
C035	Steam Puzzle - Ages 12 and Up	Page 7
C036	Vacuum Doesn't Suck, Pressure Pushes: Industrial Vacuum 101	Page 7
C037	Seal Your Fate: How Mechanical Seals Can Make or Break Your System	Page 7
C038	Mary Poppins 2025 : A Supersack of Sugar and a Vat of Ethanol	Page 7
C039	Pump Performance with VFDs: Engineering Efficiency and Sustainability	Page 7
C040	The Three S's of Insulation	Page 7
C041	Filter Smarter: Uncover Hidden Cost & Boost Performance	Page 7

	Classes	Title / Description
	C001	Seal the Deal: Boost Accuracy & Equipment Life with Diaphragm Seals Protect your pressure instrumentation from harsh conditions and extend its life with diaphragm seals. These small but mighty components reduce maintenance, minimize downtime, and enhance reliability. Plus, with accessories like capillaries, cooling elements, and flushing rings, you can fine-tune your system for peak performance and precision.
	C002	 Gas Leaks Tell a Story - We're Here to Decode It With insights from 35+ years and hundreds of safety-critical installations, we'll reveal what gas leaks can teach us about smarter detection strategies. This session compares Laser-Based Open Path Gas Detection with traditional methods, using real-world case studies to show where it shines—and why it's becoming the go-to choice for reliable, high-impact safety solutions.
	C003	Making Waves in Process Automation From foamy tanks to turbulent silos, Acoustic Wave and Microwave technologies are proving their power in the field. Join us as we scratch more than just the surface—exploring how these advanced measurement tools are solving tough level challenges, improving reliability, and delivering precision where it matters most.
	C004	Vortex Power: Smarter Sensors, Stronger Control Step up your process game with the latest in vortex sensor technology. These innovations deliver sharper insights, tighter control, and greater confidence—giving your operations the edge in performance, reliability, and efficiency.
	C005	A Practical & Safety-Driven Approach to Temperature Measurement E+H's newest temperature innovation, the TM611, is a non-invasive RTD/TC assembly for use across all industries. This session provides in-depth discussions regarding its ease of use, functionality, & reliability/repeatability over time compared to other non-invasive temperature measurements. Another topic discussed during this session is E+H's self-calibrating RTD for use in batch processing & how it can reduce your plant's risk while simultaneously increasing uptime.
	C006	From Lab to Line: Real-Time Process Insight with pH, ORP, Conductivity & DO Take control of your process like never before. With real-time measurement of pH, ORP, conductivity, and dissolved oxygen—plus instant spot checks and remote calibrations—you'll gain the precision, flexibility, and confidence to keep operations running smoothly and efficiently.
	C007	Precision in Every Pour: Smart Instrumentation for Dairy, Beverage & Brewing Discover how advanced instrumentation is transforming the dairy, beverage, and brewing industries. From boosting efficiency and ensuring compliance to elevating product quality, we'll explore the tools and technologies that help modern producers stay ahead in a competitive, fast-moving market.
	C008	A Look Inside the Chemical Industry with Raman Spectroscopy This presentation will highlight Raman spectroscopy which can be used at line or online for almost instantaneous results as they occur. Examples of standard chemical applications will be discussed where Raman spectroscopy has increased ROI by batch time reduction and increased quality through faster results and less product rework.
	C009	Radar Risk Reduction: The Role of Proper Selection, Beam Angles, Mapping and Tank Geometry Selecting and installing the right radar transmitter isn't just about picking a model - it's about understanding the full picture. In this session, we'll break down the essential factors that drive successful radar applications, from antenna selection and operating frequencies to vessel shapes and installation challenges. Join us as we highlight what to look for, what to avoid, and how to make sure your setup is optimized from the start.



Classes

Title / Description

C010 Gas Detection Demystified: Choosing the Right Tech for Safer Operations

Not all gas sensors are created equal. In this session, we break down the pros and cons of today's leading fixed gas detection technologies, covering accuracy, reliability, and maintenance needs. Learn best practices for applying these solutions across industrial environments, and gain real-world insights to help you select the most cost-effective and dependable option for your facility.

C011 On the Move: Advancing Safety with Mobile Gas Detection

Discover how the latest innovations in mobile gas detection are helping industries stay ahead of hazards. Learn how cutting-edge technology is making it easier than ever to protect your people and your plant—anytime, anywhere.



C012 Hose Selection & Safety in the Chemical Industry: A Practical Guide

Dive into the essentials of chemical hose selection and maintenance with a practical overview of the STAMPED guidelines—Size, Temperature, Application, Media, Pressure, End Configuration, and Delivery. Learn the differences between hose types like UMMW, XPLE, FEP, and PTFE, and how to choose the right one for your application. We'll also cover inspection best practices, pressure testing, third-party certification, and how to get expert help through site audits and analysis. This session is ideal for anyone looking to improve hose reliability, safety, and performance in demanding chemical environments.



C013 Heat Trace in Action: Protect Your Pipes Like a Pro (Hands-on)

Get hands-on with electric heat trace and discover how to keep your pipes—and your processes—safe and efficient. Learn how heat cable technology works, why insulation matters, and explore control options that make a difference. You'll build a working circuit and pick up expert tips and tricks to make installation smooth and stress-free.

C014 Powering the Future: Why Medium Voltage Means Smarter Manufacturing

In today's fast-paced manufacturing world, efficiency, scalability, and sustainability aren't optional—they're essential. As facilities grow and energy demands rise, medium voltage power systems are stepping out of the utility zone and into the heart of modern production. Discover how this powerful shift is driving cost savings, boosting reliability, and future proofing operations for manufacturers ready to lead the charge.



C015 Turning Up the Heat: Electrifying the Future of Industry

As industries race to cut carbon and boost efficiency, electric process heating is stepping into the spotlight. Once a niche solution, it's now driving major innovation—powered by renewables, smarter controls, and a push for decarbonization. Discover how electrification is transforming industrial heat into a cleaner, more precise, and sustainable force for the future.



C016 What is Ethernet APL?

Explore the evolution of process technologies, the differences between APL and Single Pair Ethernet, and the role of the APL Organization.



C017 APL Infrastructures

Learn installation guidelines, required components, network topologies, and how to integrate new and legacy technologies.

Endress+Hauser

C018 Asset Management with Ethernet APL

Discover how to manage and configure devices, monitor processes with Heartbeat Technology, and leverage diagnostics and device verification.

	Classes	Title / Description
 PEPPERL+FUCHS  Endress+Hauser	C019	Vendor Portfolios, Hands-On, Network Diagnostics / Web Tools Get hands-on with vendor solutions, network diagnostics, and web-based tools to enhance your APL experience.
	C020	APL Panel Discussion and Q&A Wrap up with a live panel featuring presenting companies, summarizing key insights and answering your questions.
 CAROTEK®	C021	Choosing the Right Valve: What Do You Really Need? Are you struggling to find the perfect valve for your application? You're not alone! With so many options available, selecting the right valve can seem overwhelming. We'll break down the key factors in valve selection, helping you to understand the various types and their applications. No matter your industry. Don't miss your chance to gain insights that could save you time and resources!
	C022	Built to Last: Smart Valve Solutions for Tough Conditions Extend valve life and cut maintenance costs with precision-engineered solutions built for corrosive, erosive, and high-velocity conditions. Advanced anti-erosion, noise reduction, and anti-cavitation features protect against wear and failure, while flexible material, pressure, and temperature options ensure performance in even the harshest environments.
 FLOWSERVE	C023	Dust Busters: Industrial Edition Say goodbye to dusty dilemmas! Industrial dust collector systems are your secret weapon for a cleaner, safer workspace. Packed with ultra-reliable valves, switches, actuators, and smart control systems, these solutions don't just filter air—they optimize your entire operation. Enjoy longer equipment life, less maintenance, and a sleek, simplified design that saves energy, space, and costs. It's high performance with low hassle—because clean air shouldn't be complicated.
	C024	Bend it Like a Pro: Hands-On Tube Bending Training Ready to get hands-on? Join us for a versatile Tube Bending workshop where you'll learn how to properly bend tubing and install fittings like a pro. All tools and demos are provided—just bring your curiosity and register fast, because space is limited!
 HAM-LET® <small>ADVANCED CONTROL TECHNOLOGY</small>	C025	Digital Transformation: From Smart Instruments to Smart Manufacturing Your site is already on its digital transformation journey - whether you know it or not. The choices you make (or have already made!) in OEM selection, automation platforms, and instrumentation will all accelerate or hinder your digital transformation. This presentation will help you understand how to design (or update) your site's automation roadmap to unlock Industry 4.0 capabilities.
	C026	Addressing Challenges in the Chemical Industry - Driving Operational Efficiency Chemical companies must find innovative ways to optimize their assets and boost profitability. This session focuses on how automation, digital solutions, and advanced services can modernize and enhance project execution. By leveraging the right strategies and technologies, companies can maximize asset performance and achieve operational excellence. Gain insights on addressing key challenges in the chemical industry relative to Market Variability, Productivity improvement, Process Safety, ESG / Decarbonization, and Workforce Effectiveness. Join us for this session as we share best practices to drive operational efficiency into your chemical operations.

Classes

Title / Description



C027 Plant-wide Control and Optimization with PlantPax

A modern distributed control system is built using plant-wide control technologies. Today, process control, discrete control, power control, and safety control no longer have to be a choice of separate technologies. Producers can now choose to implement a plant-wide control system. Join us for this session to learn about Rockwell Automation's PlantPax and what's new in process technology solutions.

C028 Process Safety

Keeping people and equipment safe is the number one priority in every process plant. This session highlights elements of OSHA PSM requirements including Hazard Analysis and Layer of Protection Analysis as well as how to address protection gaps using Safety Instrumented Systems.

C029 Cyber Securing Your OT Production Process

Join us as we review important information relative to cyber intelligence and industry best practices for securing the OT production environment. We will walk through best practices for: Identifying your asset inventory and related vulnerabilities.

- Detecting anomalous behavior
- Protecting your assets thru defense-in-depth
- Response & Recovery Strategies for incident containment and vulnerability eradication
- Governance and how your organization can find the ideal information for writing the ideal policy and procedural security documentation.



C030 Top 10 Ways to Kill Your Pump

Watch a live pump module in action as we put it through the wringer—demonstrating the most common system issues that lead to pump failure. From cavitation and over-pressure to misalignment and dead-head conditions, you'll see how these issues impact pump life and performance. Learn why pump failures are often symptoms of deeper system problems—and how to detect and prevent them for reliable, long-term operation.



C031 Pump It Up: Hands-One ANSI Pump Rebuild Workshop

Roll up your sleeves and dive into the inner workings of an ANSI centrifugal pump! In this hands-on session, you and your team will disassemble and rebuild a Griswold 811 process pump—complete with bearing frame, seal chamber, rotating components, and more. Learn how each part contributes to pump reliability, how to spot wear and tear, and the hydrodynamic principles behind proper rebuilds. With your own workbench, tools, and expert guidance, you'll gain practical skills to boost pump performance and longevity.



C032 Get in Gear: Hands-On Pump Rebuild & Analysis

Roll up your sleeves and dive into the inner workings of an internal gear pump! In this hands-on session, you and your team will disassemble and rebuild a factory-built pump at your own workstation. Learn to identify wear patterns, measure tolerances, and uncover root causes of failure—all with expert guidance. Whether you're new to pumps or a seasoned pro, this class offers practical insights to boost uptime and reliability.

C033 Cracking the code: Why do you need a Hygienic Pump?

Introductory class on different types of Hygienic PD Pumps and why you would choose one type over another for certain installations. Basic terminology, applications, and liquid end disassembly will be covered.



	Classes	Title / Description
	C034	Welcome to the Wide World of Air Operated Double Diaphragm (AODD) Pumps - AODD Pumps 101 - Hands On Training <p>During this training class (part classroom / part “hands on”), attendees will learn about many basic, general aspects of the wide world of air operated double diaphragms pumps, including:</p> <ul style="list-style-type: none"> • How AODD pumps work and how AODD pumps are applied • General AODD sizing & selection practices • The role of the AODD pump air motor • Best AODD pump installation, operational & maintenance practices • Troubleshooting aspects • “Hands on” AODD pump tear down
	C035	Steam Puzzle - Ages 12 and Up <p>This is an interactive session looking at a simple steam system in a facility. The session starts with a brief review of steam fundamentals followed by a discussion of basic steam system design parameters. In a team environment, participants will then be given a task and asked to help design the installation of some new equipment using what they either learned or already know. The session will end with a review of the group's designs compared to best practices. The overall goal of this session is to educate the participants in steam best practices.</p>
	C036	Vacuum Doesn't Suck, Pressure Pushes: Industrial Vacuum 101 <p>This introductory class unpacks the science and practicality behind Industrial Vacuum Systems. Come join us and learn why Vacuum doesn't suck and how Pressure pushes.</p>
	C037	Seal Your Fate: How Mechanical Seals Can Make or Break Your System <p>This class explores the critical role mechanical seals play in the reliability and efficiency of industrial systems. It covers the fundamentals of mechanical seal design, common failure modes, and best practices for maintenance and troubleshooting. Attendees will gain insights into how proper seal selection and management can prevent costly downtime and ensure system longevity.</p>
	C038	Mary Poppins 2025 : A Supersack of Sugar and a Vat of Ethanol <p>Overview of technologies for storage, transfer, formulation and dosage of liquids and solids, creating safe, efficient, and hygienic facilities.</p>
	C039	Pump Performance with VFDs: Engineering Efficiency and Sustainability <p>We'll break down how VFDs work, their role in optimizing energy use, maximizing system uptime, and how they contribute to sustainable operations. Whether you're in facilities management, engineering, or sustainability planning, this session will provide insights to improve efficiency and reduce environmental impact.</p>
	C040	The Three S's of Insulation <p>Optimizing Facility Performance with Insulation Blankets: Improve Safety, Advance Sustainability, and Drive Operational Savings on Bare Equipment, Valves, and Fittings.</p>
	C041	Filter Smarter: Uncover Hidden Cost & Boost Performance <p>Filtration does more than protect equipment—it impacts energy use, maintenance, product quality, and profitability. This session reveals the hidden costs of poor filtration and shows how smart choices can drive savings and sustainability. Learn to evaluate total cost of ownership, spot inefficiencies, and make decisions that elevate your facility's performance.</p>