AMETEK®

PROCESS INSTRUMENTS

EDITION ONE 2025

February 2025

As we enter 2025, we look forward to another strong year for AMETEK Process Instruments. Working with our Partners, we aim to secure large projects in the Oil & Gas market in the Middle East, while in the Americas and Europe, our focus is on supporting our customers with growth opportunities in core and clean energy markets. In Asia Pacific, we're prioritizing the Semiconductor market alongside traditional industries. This edition highlights our customers' projects and the outstanding work of our team members—enjoy the read!

Tim Burchell, Director, Global Sales

What's inside?

In this edition, catch up on what's been going on in the world of AMETEK Process Instruments including:

- Next generation flue gas analyzer for high-particulate processes
- Success with Sales – Solutions and Service
- Application Success - Clean Energy Objectives
- Closing the Loop – improving SRU reliability and performance

APPLICATION NEWS

Next generation flue gas analyzer for high-particulate processes

The Thermox WDG-V HP (high particulate) combustion analyzer is used to reliably measure excess oxygen, combustibles, and hydrocarbons in industrial applications including cement and lime kilns, power boilers, pulp and paper recovery boilers, and municipal waste incinerators. It is designed with the operators in mind, offering a serviceable and robust enclosure, ensuring superior ingress protection and easier access to the probe and filter.

Used for safe combustion control and emission monitoring, the WDG-V HP is built on the same unique close-coupled convective design as its predecessor, the WDG-HPII. This “chimney effect” convective sampling technology design combines the advantages of insitu probe high-particulate sampling with the high temperature and corrosion resistance of extractive analyzers, enabling end users to measure combustion even in high particulate processes.

Built on the proven WDG-V platform, the WDG-V HP also brings predictive AI diagnostics and design redundancies that increase reliability to keep operators safe. Serving global markets, the WDG-V HP is certified for use in ATEX/IECEx Zone IIC T3 Gc and North America Class I Division 2 hazardous areas.

Measuring Hydrocarbons with the WDG-V HP

With the new option for a methane detector, the WDG-V HP is now capable of measuring hydrocarbons, including methane, and even alternative clean fuels such as methanol and hydrogen at percent levels as a standard feature to monitor for excess fuel and loss of flame during start-up, light-off, and during normal operation.

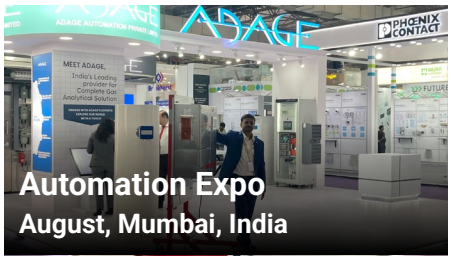
EVENTS

Our expert team regularly attend and present at events around the world to share industry knowledge and information.

Appalachian Gas Measurement Short Course (AGMSC)

August, Pittsburgh, USA

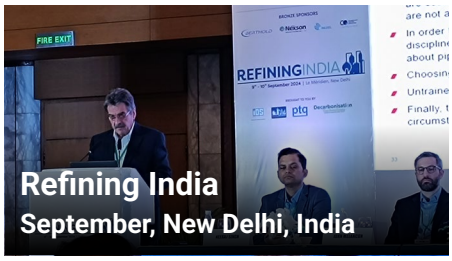
Ryan Cumpston and Joe Pannell led a Hands-On Workshop about Moisture Gas Quality analysis in natural gas, featuring our 3050-OLV QCM and 5100P TDLAS analyzers.



Automation Expo

August, Mumbai, India

Our partner, Adage, showcased our 993X gas analyzer for sulfur measurements in SRU in their booth. Anantha Kukkuvada discussed application solutions and answered questions.



Refining India

September, New Delhi, India

Jochen Geiger presented, “Optimized Process Control & Energy Saving Management,” sharing his expertise on the SRU process with attendees.

Refresher Training

September, Meerbusch, Germany

We held our second refresher training of the year for our European channel partners. The sessions focused on the Thermox and quartz crystal microbalance (QCM) product lines.

International Refining & Petrochemical Conference (IRPC)

October, Houston, USA

Tim Tallon, as an invited speaker, presented, “Optimizing Combustion Processes for Safety & Efficiency,” based upon an article he wrote for Hydrocarbon Processing magazine.

Brimstone Sulfur Symposium

October, Colorado, USA

Michael Gaura co-presented with Marco van Son of Worley Comprimo on improving the efficiency and reducing emissions in the SRU.

CRU Sulphur + Sulphuric Acid Conference & Exhibition

November, Barcelona, Spain

Michael Gaura had the opportunity to share his knowledge during his presentation, “Advanced Feed Gas Control by Detecting the BTEX Concentration in Sulphur Recovery Units.”

ADIPEC

November, Abu Dhabi, UAE

Sujay Sudhakaran attended as part of a broader AMETEK presence at this large event for the Middle East. While there, he engaged with key end users to discuss how our products can support their applications.

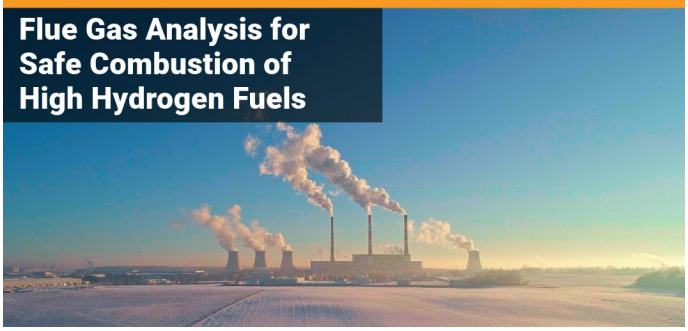
Sulfur Experts

November, Kuala Lumpur, Malaysia

Rob Merz presented “SRU Analyzer Best Practices,” to educate end users on the critical measurements in the sulfur recovery unit.

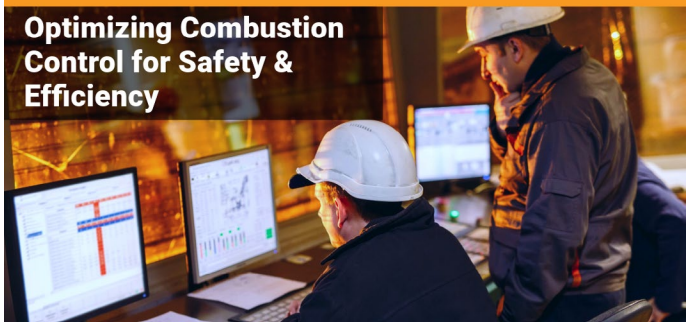
WEBINARS

Combustion Webinar Series with Tim Tallon



Covers global trends, risks and concerns, critical measurements, and more.

View on demand

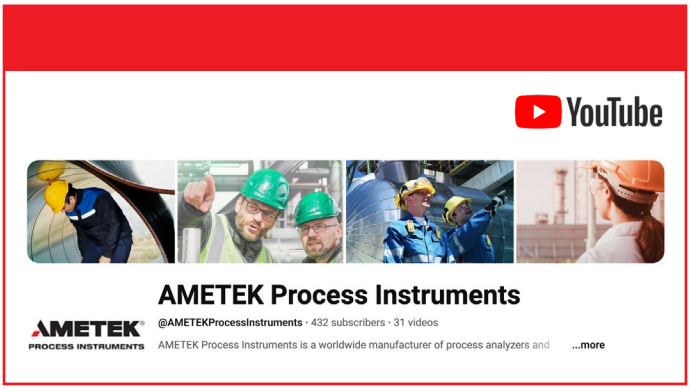


Covers topics like global trends, the safety-efficiency challenge, burner condition changes, and more.

View on demand

Covers best practices, the advantages of a “designed for safety” approach, key recommendations, and more.

View on demand



Visit our YouTube channel to see our library of on-demand webinars.

View on demand

SOLUTIONS AND SERVICE

Providing reliable solutions and service to large supplier of plastic resins and petrochemicals

Continued support and reliability of solutions is a key part of what we provide customers and something that they rely on to help them from initial start-up and installation through to ongoing maintenance and repairs.

A large integrated supplier of plastic resins and petrochemicals, has been using our solutions for some years, including support and service. Most recently, we have collaborated with them on supplying a TDLAS solution for acetylene measurements.

This project began with an application review by our Application Scientist, Airat Amerov, followed by successful assembly, calibration, and delivery of one analyzer. The Service team then provided initial installation and start-up, followed by training, required repairs, and preventative maintenance.

Feedback from the customer has indicated that the TDLAS solution is working well and they are very happy with the reliability of the analyzer and the service provided.

Marco Olivares, Service Engineer said: *"This was absolutely a team effort, along with Javier Pro and the sales team, whose contributions were key to achieving this result with the customer."*

Additional 5100HD TDLAS analyzers have been purchased and the customer continues to specify AMETEK products and the relevant service, training, and support, which is testament to their satisfaction with our products, service, and support.

CLEAN ENERGY OBJECTIVES

Steel manufacturer utilizes AMETEK analyzers for combustion measurements to enhance its clean energy objectives and sustainability

A large producer of carbon steel products in the US is working hard to reduce steelmaking greenhouse gas emissions as part of the journey to carbon neutrality.

The steel producer has the technology for turning wood waste streams into fuel by pyrolysis of the wood waste.

Combustion control is essential in the plant, to safely manage the fuel-to-air ratio of the process heaters. Designed for safety and serviceability, the WDG-V is the ideal solution as it provides accurate measurements of oxygen, combustibles, and methane for process control and safety in combustion applications.

The customer chose eight WDG-V combustion analyzers based on its proven quality and reliable operations. In addition, the customer engaged the service team for commission support to ensure a smooth installation.

Erin Connolly, Sales Manager said: *"This is a great project to be involved with. Our customer is determined to accelerate their goal to reduce greenhouse gas emissions, and our analyzers can play a big part in that journey due to our commitment to delivering comprehensive combustion control and safety solutions, and working with customers for cleaner energy worldwide."*

Pyrolysis

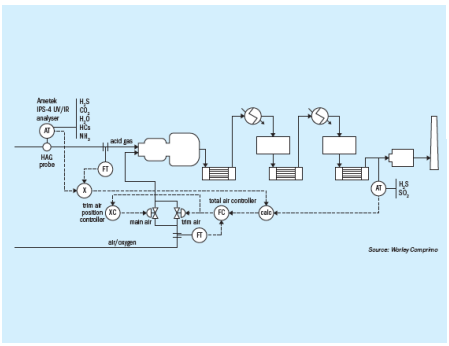
Pyrolysis is the process of heating a feed material with no oxygen present so there is very little oxidation or combustion of the wood. After the pyrolysis is finished, a high carbon (coke) is left that the manufacturer will use in its steel mill to break down the iron oxides to iron by creating a reducing atmosphere in the smelter.

IN THE NEWS

Solving Sampling Challenges with Probes

In his recent blog, Niravkumar Patel discusses how some tough sampling challenges can be solved by adding a sample probe to the system.

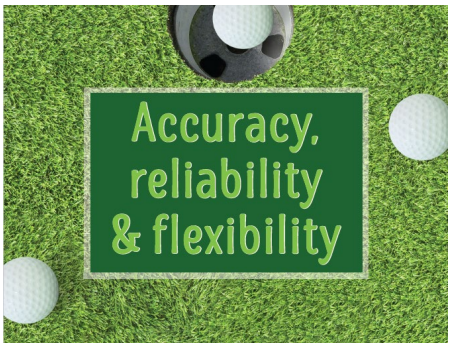
Read the blog here.



Advanced Feed Gas Control by Detecting the BTEX Concentration in Sulphur Recovery Units (SRUs)

An article in the November/ December issue of Sulphur Magazine written by Harry Burton, Michael Gaura, and Jochen Geiger discusses the impact of Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) on Sulphur Plant operations and how the BTEX concentrations can be measured.

Read the article here.



Accuracy, Reliability, and Flexibility

In the December issue of Hydrocarbon Engineering, Ryan Cumpston explores advancements in moisture analysis technology for gas processing.

Read the article here.

Press Releases

Release of IECEx Zone 2 Certified 993X Series of Wall Mounted Analyzers

We announced the release of IECEx Zone 2 Certified 993X Series of Wall-mountable Analyzers for Use in High Ambient Temperature Environments.

The 993X series of analyzers, encompassing the 993X and 9933, are now IECEx Zone 2 certified for use in locations with up to +60°C ambient temperatures.

Read the press release here.

Release of Next-Generation Quartz Crystal Microbalance Moisture Analyzer

We introduced our next-generation quartz crystal microbalance (QCM) moisture analyzer, the 3050-OLV, a modern update to a product with over 25 years of trusted reliability and performance.

Read the press release here.

CLOSING THE LOOP

Feed-forward analyzer air control technology

In sulphur recovery units (SRUs), tail gas or air demand analyzers have been providing concentration analysis of sulphur compounds for over 40 years. These measurements give insight into sulphur recovery efficiency and have been implemented in control systems as a means of adjusting the trim levels of air or oxygen at the thermal reactor. This “feed-back” control system is present in most SRUs but, increasingly, users concerned with optimal efficiency, reduced downtime, and lower regulated emissions have also been measuring H_2S, CO_2, NH_3, and total hydrocarbons (THCs) in the sour water stripper and amine acid gas feeds to the SRU.

Leveraging this incoming gas analysis as part of a “feed-forward” air control system reduces the reaction time to changes in feedstocks that may cause SRU plant upsets of increased emissions. Although AMETEK has the measurement device and experience, we needed a partner to provide a completely automated solution to end users.

We have partnered with Comprimo, part of Worley, to provide SRU stakeholders with all the critical measurements and air control system design and software logic, to finally “Close the Loop” on feed-forward Analyzer Air Control Technology. The resulting 2ACT Solution fully automates the process, resulting in improved SRU performance and reliability, as well as reduced operational expense. Preventing one upset that reduces gas plant/refinery throughput results in immediate return on investment.