

Reshaping Manufacturing

Lubricant Expo North America highlights future fuels, digital transformation and sustainability

Matthew Jaster, Senior Editor



Lubricant Expo is North America's leading exhibition and conference event dedicated to the lubricant industry. Connecting lubricant solution providers with end-user buyers and the entire chemical and equipment supply chain, the show attracts thousands of engineers and executives each year. As the sister show to Europe's largest industry event, Lubricant Expo Europe, these two shows provide the largest dedicated exhibitions for lubrication solutions on a global scale, with a free to attend expo and conference that serves the interests of thousands of visitors representing more than 75 countries. Exhibitors cover the end-to-end chain of the industry, from finished lubricants and technologies for lubricant users, to the chemical ingredients and development devices for formulators and lab professionals.





This platform unites a diverse array of stakeholders, including lubricant manufacturers, supply chain partners, OEMs, end users, and lubrication experts. The expo offers attendees opportunities to network, discover innovative solutions, and explore strategies for optimizing product and equipment performance.

The 2025 edition boasts almost twice as many exhibitors compared to 2024, reflecting its increasing prominence and appeal across the lubrication industry. Additionally, this year's conference features senior representatives from companies such as Ford, GM, Klüber Lubrication, Lubrizol, Chevron Oronite, BASF, and ExxonMobil. Their active participation highlights the event's critical role in shaping the future of the lubrication sector and the industries it serves.

This year's Lubricant Expo will spotlight several emerging and transformative topics shaping the lubrication industry:

- **Future Fuels and Lubricants:** With the rise of hydrogen, biofuels, synthetic e-fuels, and ammonia, sessions will explore how these alternative energy sources are influencing the development of advanced lubricants that address high thermal stability, oxidation resistance, and material compatibility challenges.

- **Advancements in Electric and Hybrid Vehicle Lubrication:** Focus will be on fluid development for hybrid vehicle architectures and innovations for electrified drive-trains, emphasizing dielectric properties, reduced friction, and superior cooling capabilities.
- **Digital Transformation:** The role of AI, machine learning, and IoT in revolutionizing product development, from predictive modeling to streamlining the formulation process, will be thoroughly examined.
- **Contamination Control and Maintenance:** Key strategies in oil analysis, filtration, and contamination mitigation will be discussed to improve equipment reliability and extend operational lifespans.
- **Supply Chain Challenges and Innovation:** Sessions will address securing rerefined base oils, supply chain compliance, and adapting to geopolitical and regulatory pressures.
- **Sustainability and Green Technologies:** Biobased lubricants, renewable feedstocks, and reducing the carbon footprint of lubricants will take center stage, with a focus on eco-friendly innovation.

According to Tom Harris, event director, the key challenges taking place today in the lubrication market include:

- **Meeting Future Fuel Requirements:** Transitioning to alternative fuels requires lubricants with unique properties, such as enhanced thermal stability, wear protection, and corrosion resistance, to match the demands of hydrogen, bio-fuels, and e-fuels.
- **Sustainability Pressures:** Reducing carbon footprints, developing bio-based alternatives, and conducting life cycle assessments are increasingly critical amid growing environmental regulations.
- **Supply Chain Constraints:** Limited availability of high-quality used oil feedstocks for re-refined base oils and navigating geopolitical tensions and regulatory compliance continue to challenge the industry.
- **Electrification and Hybridization:** The rise of hybrid and electric vehicles introduces engineering complexities for fluids, such as balancing lubrication for internal combustion engines and electric motor cooling.
- **Cost Competitiveness:** While advanced synthetic esters and bio-based lubricants deliver superior

performance and sustainability, their higher costs and scalability remain barriers to widespread adoption.

Sustainability is a core theme of this year's Lubricant Expo, with significant emphasis on:

- **Biobased Lubricants and Renewable Feedstocks:** Highlighting advancements in natural, eco-friendly materials like plant oils and esters, while addressing challenges in feed-stock availability and scalability.
- **Carbon Footprint Reduction:** Strategies to reduce emissions through accurate data collection, life-cycle assessments (LCAs), and the development of low-carbon formulations will be explored.
- **Re-refined Base Oils:** Industry leaders will address strategies to overcome supply chain hurdles for re-refined oils, promoting circular economy principles.
- **Eco-Friendly Lubrication Practices:** Sessions will showcase technologies and best practices that align with

environmental regulations, emphasizing reduced toxicity, biodegradability, and energy-efficient formulations.

These discussions aim to align the lubrication industry with global decarbonization goals and establish pathways for achieving long-term sustainability.

Additionally, the Lubricant Expo is co-located with The Bearing Show 2025, connecting the evolving needs of bearings end-users with the latest technologies serving OEM development, maintenance professionals and R&D engineers. The Bearing Show features exhibitors from the entire ecosystem, including finished bearings, condition monitoring, tools and equipment, components, materials, testing, and machinery used in the processes of bearing production and application.

"Looking ahead, Lubricant Expo is set to continue its impressive expansion. Future editions will likely include an even broader array of exhibitors, groundbreaking presentations, and enhanced networking opportunities," Harris added. "Attendees can anticipate an

ever-growing emphasis on sustainability, advanced technologies, and emerging trends, solidifying the event's status as a must-attend destination for professionals throughout the lubrication ecosystem. Its ongoing evolution ensures it will remain a central hub for fostering innovation, collaboration, and excellence in the years to come."

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