



Machinery and Equipment MRO interviewed three oil and lubrication specialists to uncover industry trends that are important to suppliers and users alike. We asked them to consider factors that significantly influence decision-making on more easily protecting equipment, and to share insights on what's new, what holds value and provides improvements, as well as what helps solve common problems.

Expert Panel:

Mike Deckert, vice-president, Flo Components

Mark Barnes, vice-president, Des-Case Lubrication Transformation Services

Bill Watson, director of Marketing and Engineering, Klüber Lubrication NA LP



Mike Deckert, vice-president, Flo Components

MRO: What do you see as some of the more important trends in lubrication and oil analysis?

Deckert: Among the biggest trends right now is on-board oil analysis, where they are trying to get samples as the machines are running, rather than when machines are not in production. The other trend is data acquisition. There is so much talk about and program-

ming of wireless communication. If there is a problem with a lube system, then somebody gets an email or text. The technology can also tie into the GPS so that employees can view the system on their mobile equipment.

MRO: Are there any innovations that maintenance and plant managers should look for in the coming years?

Deckert: Everybody is asking for data and information. But what they're doing with it, I have no idea. Then they get a very long, very detailed report about one single oil sample, where the average technician doesn't even understand the wording because it's done by chemists and physicists. Instead, what we need is two or three specific parameters to tell us what we want to know. Keep it practical - red light, green light, yellow light. Maintenance needs readable and knowledgeable dashboards. And in getting staff to use the information, training is going to be key.

MRO: What are some of the issues customers come to you with, and what are some of the solutions you recommend?

Deckert: Low-level lube failure, which is the capacity of lubricant in the reservoir, and lube failure indicators, which looks at whether the system is functioning properly. These are the two main ones that people are looking for now. You can also get into quantity dispensed; they want to know that a measured amount

was actually dispensed.

The payback period rule of thumb is usually 12 to 16 months on a lube system. The unfortunate reality is that unless they have felt the pain of the reactive maintenance cost of a broken-down bearing, many traditionalists still see lube systems as an "it would be nice to have" tool, but not as a "must have." A classic example is a paver machine on the highway. If that machine breaks down while they're paving, it could cost the company \$2,500 - \$2,700 per minute. A company that has had that experience is a lot more eager to investigate potential solutions for "how do we stop breakdowns?"

MRO: Flo offers a comprehensive list of specialty lubricant solutions for fleet fluid maintenance systems, automated greasing systems, maintenance plans... Can you discuss innovative lubricant trends in each of the following industries: food & beverage; mining and oil & gas; and industrial plants, such as steel, paper and metalworking?

Deckert: Food & beverage has a lot to do with minimum lubricant delivery, monitoring and washdowns. When they're cleaning machines, they're washing lubricant out of the bearings. Food-grade lubricants have to be able to take the heat of the ovens. Also, chain lubrication is becoming more and more relevant, because of the heat.

At industrial plants it's all about up-

time and efficiency. The machines are being asked to run longer, with less maintenance. And maintenance budgets are being cut. So how do you compensate? Automatic lube systems can help that aspect.

Mining and oil & gas has a lot to do with uptime and using proactive maintenance – rather than reactive. But in this context we're also talking about the environment with onboard oil-change systems. It is no longer accepted practice that one can just change oil filters. There is a huge environmental impact that needs to be considered.

MRO: What has been your biggest project successes and what part has Flo played?

Deckert: Some of the big projects we've worked on as a company are in the rail industry, where we applied gauge-face lubrication and top-of-rail lubrication. A lot of that is for reduction of noise, wear and for longevity and it's where we deployed our first in-the-cloud monitoring system. The rail industry is basically hosted in the cloud and operators use dashboards to monitor five key things – snow sensor, noise sensor, reservoir level capacity, solar panel charging power, and the amount of power available for the system because it's all 24V, and the rain. If one indicator falls outside of the parameters, an email is sent to a few key people.

On-board oil change is another. In spite of all the technological advancements over the years, people are still doing oil changes on their equipment the way they did back in the 1950's. Traditional oil change methods are labour intensive and time consuming and technicians risk injury removing hot oil filters. There is also the problem of oil spills causing environmental contamination. The on-board oil change system offers a simple solution for all of that. The system is revolutionary as you're purging the system of the oil first, so that when you take the filter off, there is no more than 10 per cent of the oil left in the filter. It's easier, safer, cleaner. So purge, evacuate and filter from one place, and it's a whole lot quicker.

MRO: Customers/users are becoming sophisticated in selecting brands. Presumably for specialists, such as Flo Components, the emphasis is less on cost and performance and more on the range of lubrication services and support. How

can plants use these capabilities beyond mere maintenance functions?

Deckert: The relationship becomes a partnership, where the customer relies on Flo to provide a service, but also to provide knowledge and training, as well as working with their people. For Flo, it builds customer loyalty and makes us stronger. And for the customer, they are working with a company that becomes an additional arm in their plant. That is a good thing. Our goal is to eliminate their pain.



Mark Barnes,
vice-president,
Des-Case Lubrication
Transformation Services

MRO: What do you see as some of the more important trends in lubrication and oil analysis?

Barnes: Not really a trend, but the degree to which maintenance and reliability professionals are starting to realize that precision lubrication is an important foundational element for overall reliability is something I've witnessed over the past five to 10 years. Whereas 10 years ago, lubrication was seen as the cost of doing business, today more and more people are understanding that it's a way to systematically engineer our maintenance costs.

MRO: Are there any innovations that maintenance managers should look for in the coming years?

Barnes: Like most areas of maintenance and reliability, the Industrial Internet of Things (IIoT) is really starting to take hold very rapidly. There are already simple devices that provide lubrication-type information almost in real time and we'll likely see many more such tools coming to the forefront in the next few years.

MRO: What are some of the issues customers come to you with, and what are some of the solutions you recommend?

Barnes: As I mentioned, maintenance professionals are starting to understand how valuable a proper lubrication program can be. But most simply don't know where to start or are unable to sell the value proposition to senior managers who write the purchase orders. I'm always being asked to help customers develop both project implementation plans and the business case to help them implement a sustainable precision lubrication program.

MRO: Can you discuss an innovative aspect that's relevant to each of the following industries (a) food & beverage (b) mining and oil&gas (c) industrial plants (e.g. steel and pulp & paper).

Barnes: The one thing that all these industries have in common is the impact that contamination – both particles and moisture – has on equipment reliability. A quick Google search will yield dozens of filter companies that all have products that control particles and moisture, but few have the experience or practical expertise to help customers execute an effective contamination control strategy. Our approach is to have reliability consultants that have worked with customers in these and other major industries' verticals for many years to build solutions, rather than just sell filters or filtration product from a catalogue. At the end of the day, if you aren't working to solve a real problem, and just sell a product, a knowledgeable customer will correctly take their business elsewhere. More than anything else, we pride ourselves on being solution providers who happen to sell products and services.

MRO: What have been some of the biggest project successes in which you've played a part?

Barnes: Do we have space for a whole article! For me, I get the biggest satisfaction from seeing companies execute a new strategy and realize the gains they set out to achieve. But if you force me to point to just one example, I would have to say the auto manufacturer that reduced downtime by 54 per cent on their stamping press and realized millions of dollars of documented cost savings across all areas of their business simply by getting the right oil in the right place and making sure the oil remained clean, dry and cool!

MRO: Customers are becoming sophisticated in selecting brands. Presumably for lubrication specialists the emphasis is less on cost and performance and more on the range of lubrication services and support. How can plants use these capabilities beyond mere maintenance functions?

Barnes: Perhaps 10 or 15 years ago a lot of lubricant consumers were focused strictly on price. Nowadays maintenance professionals are starting to realize it's not all about price. But while using more expensive, high-performance

lubricants can certainly solve some issues, the reality is that it's the basic act of applying correctly and managing lubricant health and cleanliness that's at the route of most lubrication related issues. Those vendors that can bring more than just a good product are those that are succeeding in the industry and providing the most value to end-users. The best advice I can offer is to tap into the expertise of vendors that provide solutions beyond simply a product specification or technical data-sheet.



Bill Watson,
director of
Marketing and
Engineering,
Klüber Lubrica-
tion NA LP

MRO: What do you see as some of the more important trends in lubrication and oil analysis?

Watson: In lubrication, as an example, the advent of the electric vehicles in the automotive industry is bringing new applications, challenges and opportunities to the industry. And oil analysis is becoming even more digitized with online monitoring and immediate feedback – which can be very helpful on a critical piece of equipment.

MRO: Are there any innovations that maintenance managers should look for in the coming years?

Watson: There are always new, improved chemistries and advances in the additives market that bring on innovations in lubricants. Truly biodegradable lubricants are becoming more prevalent, and spreading to more industries. In marine, for instance, legislation is driving that demand.

MRO: What are some of the issues customers come to you with, and what are some of the solutions you recommend?

Watson: We recently developed a chain oil for extremely

high temperatures used in pizza and tortilla ovens. The issue was that previously used lubricants would not last, nor perform very well and it was difficult to re-lubricate during operation, plus the product had to be food grade (Hi).

MRO: What have been some of the biggest project successes in which you've played a part? Can you explain how Klüber Lubrication solved a problem within the industry?

Watson: There is an application in tire production plants, on the tire moulding equipment that see temperatures upwards of 200-degrees C. There are different concepts of how to lubricate the segmented molds. Klüber's solution is a PFPE grease. **MRO**

Rehana Begg is the editor of Machinery and Equipment MRO magazine. Reach her at www.mromagazine.com.

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