

COMPANY PROFILE

KLÜBER LUBRICATION

By Stephen Sisk



No two tribology applications are exactly the same. As such, Klüber Lubrication takes a precision needs-based approach in helping its clients determine the proper lubrication products.

Oil is oil, right? There's no difference.

Try to take that position with a representative of Klüber Lubrication. They will swiftly, yet tactfully, educate you on the fallacies in your reasoning—with eight decades of experience, a catalog of more than 2,000 specialty lubricants, and German precision.

Before the conversation is over, chances are you'll respond to specific questions about your lubrication needs with shrugs and quizzical expressions. Go ahead and wave the white flag. Defer to the experts.

For more than eight decades, Klüber Lubrication has provided innovative, application-specific lubricants to a wide range of industries—from automotive to pharmaceuticals to renewable energy. The company's customer-focused, needs-based development process (inadequately illustrated above) has elevated Klüber to the pinnacle of the specialty lubricants industry.

That philosophy can be attributed and traced back to the founding principle of its founding father Theodor Klüber, who in 1929, set out to formulate and produce specialty lubricants of exceptional quality.

Along the way, the company's efforts to solicit and understand the exact needs of specific industrial applications, combined with rigorous, comprehensive testing and analysis were and still are instrumental in the formulation of Klüber's lubrication products.

Headquartered in Munich, Germany, with its North American location in Londonderry, N.H., Klüber employs nearly 2,000 people. Of that number, nearly half are in direct contact with customers—taking and fulfilling product orders or fostering the needs identification and co-development processes.

Klüber has established itself as a significant name in the wind energy industry worldwide, primarily in recent years with the push toward renewable energy.

"We've really been active in North America for the last six years," said Jesse Dilk, Market Manager for Klüber Lubrication North America L.P. "When the global industry started growing, we formed a business unit of team members who focus on local wind markets throughout the world."

Klüber lends its extensive experience in creating specialty lubricants to developing lubricants to meet both current and future wind energy lubrication applications.

Among its portfolio are lubrication solutions for main gearboxes, yaw gears, main bearings, generator bearings, slip rings, pitch mechanisms, and slewing rings.

Specific product offerings for wind energy include:

- Klüberplex BEM 41-141 for bearing applications
- Klüberplex AG 11-462 for open gear applications

- Klübersynth AG 14-61 for gear/pinion interfaces and plain bearings at low temperatures
- Klübersynth GEM 4-320 N for gear drives

The research and development process is a cornerstone for Klüber. Although a brief description can't do the company's R&D process justice, it involves pairing a lubricant with a specific industrial application. Existing products are first considered and tested in the specific application either on test rigs or in the field. If an existing product does not meet the exact needs, Klüber's 150 scientists and engineers will enter the development stage. The testing and development process continues until a lubricant arises that meets the exact requirements of the application.

"We run lubricants on our test rigs and screen them to find the ones that show the best performance for the real application," Dilk said. "That's how we either choose or continue to develop a lubricant. If a product performs very well on all of our tests, we offer it as a solution to the OEMs."

With the advent of new technologies and the push toward maximum efficiency in the wind energy industry, Klüber is investigating the varying demands that will arise for turbine component lubrication.

As rotors and turbines in general, increase in size, lubricants that may have been satisfactory in older, smaller designs are less likely to provide optimal lubrication.

"What was a good lubricant for old turbines may not be the best solution for new models," Dilk said. Another example is the move toward active blade pitching—blades turning into and out of the wind on a relatively constant basis.

In short, the harder a component works, the harder the lubricant works. It's necessary to choose the proper lubricant that can withstand the increased workload. The company's KlüberMonitor Grease Condition Analysis provides regular insight on the current condition of the grease that is in service. As a result, the failure rate of expensive components or systems can be reduced.

Klüber Lubrication is part of the Chemical Specialties division of the Freudenberg Group, and operates in more than 30 countries spanning the globe. In addition to wind energy, the company serves a large range of other industries and customers, such as: automotive, food and beverage, cement, marine, mining, textiles and wood.

For more information about Klüber Lubrication, visit www.klubersolutions.com.

For technical articles by Klüber staff regarding wind energy, visit www.windssystemsmag.com and enter the search keyword "Klüber" 