



USER REPORT

Successfully extended service life and improved production reliability

Voith puts coolants and fluid management from Rhenus Lub into action

Rhenus Lub Press Office
c/o earnesto GmbH
Marco Wunsch
Hildebrandstr. 24 D
40215 Düsseldorf, Germany
Tel: +49 (0)211 - 385 44 447
wunsch@earnesto.de

With 19,000 employees, 4.2 billion euro in sales and offices in over 60 countries around the world, Voith is one of the largest family-owned companies in Europe. At its site in Crailsheim, Germany, the Voith Turbo department is developing drive components such as gearboxes and clutches, keeping millions of people, goods and machines moving reliably every day and ensuring that forces are transferred in controlled movements, even under extreme conditions. The coolants used also play an important role in enabling this technology leader with more than 150 years of experience to manufacture future-oriented products for its customers in the energy, mining and automotive industries.

Since 2017, Voith has relied on rhenus FU 800 coolant from Rhenus Lub, which combines the highest level of performance with the best possible health protection. Together with comprehensive fluid management from the lubricant experts and the innovative "FluidSafe" real-time coolant measurement system, rhenus FU 800 increases process stability and safety.

Process improvements thanks to rhenus FU 800

The decision to use rhenus FU 800 came after an intensive six-month test phase. Even during the first few weeks of the test, the high level of performance of the coolant from Rhenus Lub already impressed those responsible for production at Voith. Karl Augustin, Production Manager at Voith Turbo in Crailsheim, Germany, closely oversaw the test and conversion phases. After working at the company for 14 years in several roles relating to robot technology, machine procurement, construction and as a safety engineer, he has an in-depth understanding of the company's specific production requirements. It quickly became clear to him that rhenus FU 800 was contributing to improvement: "With our new coolant, the process is running safely, and so far there have been no unplanned coolant changes". This is a massive advantage for the company, which uses a large central plant measuring around 30 cubic metres for production. The plant is connected to the many production machines, so unplanned coolant changes would lead to enormous additional costs. "Of course, switching to a new coolant is not usually a simple task", says Augustin, "but Rhenus Lub has made it easy thanks to its expertise and technical knowledge. Even in the start phase, there

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were several service personnel here on site, which allowed us to carry out the conversion without any downtimes in our production."

In addition to a safe process, employee protection is of utmost importance for global companies, as Karl Augustin explains: "As a production manager, I have great responsibility toward my employees. rhenus FU 800 is an innovative product that meets our high requirements in terms of employee health and safety to an excellent degree. The new coolant does not contain boron or formaldehyde, which are potentially harmful to employees. It can therefore be used without restriction from a health protection point of view. The fact that rhenus FU 800 already goes above and beyond legal requirements means that it corresponds to what we expect from a future-oriented product", says Augustin.

Experts in fluid management

Using the appropriate coolant is far from the only factor contributing to a functioning fluid process. The specialist and technological knowledge required to meaningfully clarify and analyse parameters that influence the coolant process, and to perform the correct optimisation measures, are more in demand than ever. By choosing Rhenus Lub, Voith has found the right partner to provide such expertise and has handed their fluid management processes over to these experienced lubricant specialists. For this purpose, a Rhenus Lub employee is located on-site every day to carry out tasks such as correcting measured coolant values in the event of deviations and implementing agreed fluid management work — all with the objectives of stability and cost reduction in mind. Rhenus Lub has also taken over the storage and availability of agreed fluids. Regular visits by project engineers and field service staff provide additional fluid management support and ensure that the process at Voith Turbo is safe at all times, meaning that the company can concentrate on value creation.

FluidSafe ensures permanently stable coolants

FluidSafe, an innovative device developed by Rhenus Lub for measuring the most important coolant parameters in real-time, also adds real value to fluid management at Voith. In addition to conductivity, pH value and concentration, the tool measures the bacterial content of the coolant around the clock — a feature that is particularly critical for production at Voith. This continual evaluation is a decisive advantage, as Jörg Kummerow, Sales Manager for Southern Germany at Rhenus Lub, knows: "With FluidSafe, we can offer Voith constant documentation of their coolant, which contains a transparent overview of the daily fluctuations in the fluid, including bacteria

measurements." This modern technology helps to maintain a lower level of fluctuation in the main coolant values. This in turn leads to increased process reliability, and ultimately to lower process costs thanks to less waste. "The continuous documentation provided by FluidSafe is often a revelation to customers, as the changing coolant measurement values allow them to better understand and clarify even small changes to the machines", reports Kummerow.

A partnership characterised by close collaboration

Voith Turbo and Rhenus Lub maintain a closely collaborative relationship, with the lubricant manufacturer suggesting specific solutions to ensure that the process becomes more efficient. From the moment when the two companies began working together last year, the objectives were to gain knowledge about customer-specific processes and to use their expertise to gain the required level of trust. Karl Augustin also confirms this: "The personal yet confident approach of Rhenus Lub is very important to us. Our points of contact know exactly what they are talking about and have the fluid process absolutely under control. In the past, I would usually have to be personally involved if problems arose. That cost me precious time. Thanks to our current fluid management solution from Rhenus Lub, the processes have become even more safe and stable. They take care of the coolants and I don't have to worry about whether everything is OK in that respect. Thanks to this, I finally have more freedom to perform my actual tasks as a production manager".

Improvements can already be seen

By using rhenus FU 800, Voith has already attained a substantial improvement when it comes to service life. The coolants used previously had to be partially replaced after just nine months, and after twelve months they had to be completely replaced and the system cleaned extensively. The coolants from Rhenus Lub have already been in the plant for 18 months, and cleaning work has been reduced significantly.

This, along with the technology and expertise provided by Rhenus Lub, means that the manufacturing company not only saves costs, but also reaches a whole new level of process safety. In particular, the formation of bacteria is no longer a challenge for Voith. This allows the company to continue concentrating on what it does best: producing innovative drive components.

Image material



Image 1: *rhenus FU 800 makes manufacturing the Voith Vorecon planetary gear safer. (Source: Voith)*



Image 2: *Rhenus Lub Regional Manager, Armin Alic, (left) in conversation with Karl Augustin: "Improvements can already be seen." (Source: Rhenus Lub)*



Image 3: *With the FluidSafe real-time coolant measurement system, Voith has information about crucial parameters available at all times. (Source: Rhenus Lub)*

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About Rhenus Lub

Rhenus Lub is an international system provider of special lubricants, application support and process solutions for metal working and metal processing. The company, which was founded in Mönchengladbach, Germany, in 1882, develops and manufactures water-miscible coolants and neat oils for demanding machining applications, special products for metal working and special greases and special oils for lubricating roller bearings and other industrial components. Their customers include leading companies in the mechanical engineering industry, the automotive and automotive supply industries, as well as in the roller bearing, food and aerospace industries.

As an innovation leader, Rhenus Lub invests an above-average amount in research and development, with over 20 per cent of all employees working in this area. Through its subsidiary companies and other representative partners abroad, Rhenus Lub has a presence in 40 countries around the world.



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Rhenus Lub GmbH & Co KG
Management
AG Mönchengladbach HRA 940
p.h.G. Rhenus Management GmbH
AG Mönchengladbach HRB 188

Postfach 50 02 07, 41172 Mönchengladbach
Hamburgerring 45, 41179 Mönchengladbach, Germany
www.rhenuslub.de/en/

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