



KlüberServiceSystem
Our program for your success

Lubrication is our world



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The KlüberServiceSystem: Because you matter to us!

What you rightfully expect from lubricants made by Klüber goes naturally for our ServiceSystem as well: quality of the highest level, and a diversity that is probably unparalleled. This diversity not only reflects the many lines of business that we serve. It has also evolved from the many individualised solutions which Klüber has developed for its customers, and often in cooperation with them.

It is not only important that your machinery runs reliably; but that it runs efficiently, and for a long time. It is also important that you know that the subject of lubrication is being taken care of as a whole by a competent partner so that your workforce can concentrate on their proper productive work.

What matters most to us is your satisfaction with our service. And since satisfied customers tend to call again, this is admittedly not an entirely selfless wish...

We know from asking our customers that they attach major importance to comprehensive and competent levels of service and that their needs and expectations can be vastly different. We have therefore built and developed a range of service modules that complement one another and can be freely combined or selected individually.

With this brochure, we would like to present to you the KlüberServiceSystem:

- KlüberConsult for all your questions on lubrication technology
- KlüberCollege for training your staff
- KlüberLubConcept for the creation of lubrication charts, the use of dedicated software and the labelling of lubrication points
- KlüberMonitor for monitoring the condition of both the lubricant and machinery
- KlüberMaintain for the cleaning and relubrication of machines
- KlüberRepair for the reworking of damaged large gear drives
- KlüberAssetSupport for the optimisation of equipment utilisation and reliability

You can use the KlüberServiceSystem worldwide. We are where you are!

Just call us – phone your personal consultant at Klüber or write an e-mail to service@klueber.com.

KlüberConsult

No problem left unsolved

Klüber Lubrication have developed and produced speciality lubricants for more than 80 years. We have been the world market leader in this sector for several decades. Consequently, we have developed along with our customers and have seen many technical innovations evolve from the very beginning. This is true for almost all industrial production fields.

The results of these activities are several hundred tailor-made products that were developed by our experts in cooperation with customers to obtain lubricants that are optimally suited for specific individual tasks.

It is therefore not uncommon for our customers to approach Klüber when planning new equipment designs. At Klüber, there is a specialist for each industrial sector, someone who understands the requirements of the customer due to many years of experience in that field.

An example from the wind energy sector may be quoted to illustrate how a successful solution was found for an industry-specific task. Before our consultation project, half a dozen different lubricants were required for a single wind turbine. Small wonder this led to lubricants being mixed up and used in the wrong place. Repair of the damage that ensued was often extremely costly.

In discussions with Klüber specialists, the issue was raised by both the operators and manufacturers of wind turbines, and a possible solution was jointly projected: A single grease for all bearings in a wind turbine!

Within a KlüberConsult project, the consultants and R&D engineers at Klüber succeeded in creating a suitable lubricant for that purpose. As a result, the risk of incorrect lubricant use has been virtually eliminated!

So when you're about to launch a project in your R&D department: talk to Klüber. Our engineers will be pleased to assist you!



KlüberCollege

Training for your staff – the key to your success

A major component of The KlüberServiceSystem is the training of employees in lubrication and tribology in a manner that ensures maximum benefit to your operation. Klüber provide a variety of tailor-made training programs for the different functions people have in your company.

For production and maintenance staff, Klüber provide basic knowledge in lubrication engineering to improve their awareness and understanding of lubrication. This training focuses on the safe and correct use of lubricants, tips and tricks regarding when, where and how to lubricate, and how much lubricant to apply.

Offering design engineers valuable information on lubrication technology during the product development stage is a further focus of KlüberCollege. In training events of this type, we explain how friction, lubrication and wear are connected and talk extensively about the tasks, characteristics and uses of lubricants. Such knowledge can contribute decisively to a design engineer developing even better products.

Training events held at Klüber have the additional benefit of offering an opportunity to exchange valuable information and practical hints with other experts.

On request, Klüber trainers will also visit customer premises to hold training events individually matched to the requirements of your plant.

Our experience shows: your staff will be able to implement the know-how gained via Klüber training immediately. The result will be higher efficiency and improved reliability of production processes.



KlüberLubConcept

Optimised processes according to plan



In a complex production site, a plant lubrication chart for all machines is indispensable. Especially in factories with a high utilisation rate, it is highly desirable to minimise or even eliminate costly machine downtime needed for service procedures. Uninterrupted production must be ensured at all times. With the aid of KlüberLubConcept, you can optimise production utilisation and reduce maintenance costs.

Our consultants will firstly gain a general overview of the company site, identify and record all lubrication points and the lubricants used. Based on this information, the Klüber specialist will develop a scheme for improvement. It may include more effective lubricants, precise metering of lubricant quantities, improved maintenance intervals or application methods.

All measures derived will be documented in an individually generated plant lubrication chart. If required, Klüber can provide a software package specifically developed for the control and documentation of lubrication processes.

The cost savings attained are not solely attributable to the optimised processes: it is also the reduced number of lubricants and the rationalised stock levels that have a positive effect.

In a successful project of this kind, the Klüber specialists effectively reduced the number of lubricants used at a beverage plant from 46 to 27. Consistent labelling of lubricant containers, storage sites, application equipment and the machine lubrication points significantly improved the process reliability of the plant, leading to a reduction of machine downtime by more than five percent.

The quality of the products was of course equally important to the customer. The plant lubrication chart ensures that the right lubricant is used at the right lube point – this is critically important in a food-processing plant where only approved speciality lubricants may be used.

KlüberMonitor

Analyses to save you real money



KlüberMonitor offers analyses of lubricants and lubricated components for condition-based maintenance. These involve thorough examination of the lubricant sampled from a machine enabling a prediction to be made on suitability for further use. The lubricant can thus be used to its full service life capacity, while the risk of unplanned downtime is reduced. Analysis results are documented systematically in order to determine optimum maintenance intervals.

Klüber used-oil analyses provide important information on changes in the lubricant's chemical composition, viscosity, or whether impurities are present. The customer is thereafter provided with an analysis report informing whether the oil is suitable for further use and when the next inspection is recommended.

Specialists from Klüber can also be called to inspect open gear drives, e.g. in the base-materials-, cement-, steel-, paper- or mining industries, or on winch drives in marine or off-shore applications. The condition of the drive is determined visually and with the aid of stroboscopes, infrared thermometers or hardness measurements. The results are evaluated and documented electronically for simple permanent archiving. The Klüber specialist will then make a recommendation as to whether other measures should be taken to maintain or improve the condition of the drive.

KlüberMaintain

Always at your service

Sometimes our customers know quite well that they would be better switching to an alternative lubricant, yet they remain reluctant to change. They often fear problems due to incompatibility of the old and new lubricant, or of the new lubricant and seals or paints. This is where the knowledge of Klüber experts comes in: they are aware of all the relevant aspects and are able to make considered and effective recommendations. Suitable measures can be taken with regard to oil change, cleaning or purging of components, etc. This ensures that the machinery remains fully operational and free from costly repeated damage risk.

Under KlüberMaintain, we also offer automatic lubricant dispensers. When used with a suitable lubricant, they can help to reduce maintenance costs considerably. Automatic lubricant dispensers ensure continuous lubrication without delay and eliminate the risk of forgetting to lubricate at specified intervals. Machine operation and production processes therefore become more reliable. KlüberMaintain enables selection of the best combination of lubricant and automatic lubricant dispenser for a host of applications.

The professional support Klüber can provide in maintenance-related matters helps you keep machinery in good shape, allowing full protection of your investment.



KlüberRepair

Repair lubrication prevents machine downtime



Not all damage that occurs on the tooth flanks of large gears requires replacement of the component concerned. The cost incurred by unplanned production stoppages can in many cases be avoided via KlüberRepair – and the major investment in a replacement component can be postponed or eliminated. This also prevents production being halted for months at a time due to long delivery times for spare parts.

The use of a special lubricant combined with the repair lubrication procedure conducted by our specialists can provide relief in such cases: damage to tooth flanks can be corrected, leading to improved machine function. Hence the gear rim or pinion will not have to be replaced for considerable time to come. The major benefit of the repair process is that the drive does not need to be stopped during this procedure: repair lubrication takes place while the drive is running! The success of repair lubrication is checked by our specialists directly on the machinery so that additional repair can be initiated if necessary. While this is fairly straightforward in principle, the technique does require comprehensive technical knowledge and many years of experience to be completed successfully.

In cases where repair lubrication is insufficient, our specialists will grind the flanks mechanically, remove burs or pitting defects, depending on the type of damage encountered. This can lead to improved drive function prolonging equipment service lifetime considerably.

The success of KlüberRepair is illustrated by the example of an oil drilling rig operating in the Atlantic Ocean. As the oil rig was moved to its position at sea, no one paid proper attention to the lubrication of the anchor winch drive. Substantial damage to the tooth flanks of the drive occurred. Machining and repair lubrication brought the winches back to service in two weeks' time. On-shore repair work – which would have involved towing the oil rig to shore and back and would have caused it to remain out of service for about six months – was avoided and the operator was spared a consequent production loss of several tens of millions of Euros.

The positive effect of this repair scheme is obvious: machines run longer, major replacement investment can be postponed accordingly, less outlay is required for the repair and, probably most important, production losses are eliminated.

KlüberAssetSupport

The added value package

KlüberAssetSupport is a methodology developed by Klüber that has already been used successfully in a multitude of applications. Individual service modules and carefully selected lubricants are combined to form a package for the customer's individual requirements.

How is this done? Following discussions on the general situation and objectives to be attained, the Klüber consultants will carry out a lubrication pre-audit to analyse the plant situation in detail. This pre-audit takes about half a day and is offered free of charge. It serves for identifying potential for optimisation in your production and suggesting measures with the help of which savings can be attained.

The results of the pre-audit are shown in a presentation and constitute the basis for deciding the next steps to be taken.

Depending on the desired effect, various elements of the KlüberServiceSystems are then used for implementation: KlüberConsult, KlüberCollege or KlüberLubConcept. This is where it becomes obvious that the true strength of the modular service concept lies with its capacity to optimise the lubrication processes in your plant systematically.

But Klüber won't stop there: at agreed intervals, interim audits will be undertaken, the results attained will be compared with agreed objectives and activities are amended accordingly. The various steps will be carefully documented by Klüber so that you can get the full picture of the project any time.

Experience has shown that all this is well worth the effort. For example, customers using KlüberAssetSupport have succeeded in reducing equipment downtime by more than 5 %, the number of lubricants used was in some cases cut by more than 40 %, some customers have increased the availability of their facilities as well as the daily production output by more than ten percent.

A world-famous manufacturer of a brown soft drink use KlüberAssetSupport in their plant - they now save several hundred thousand dollars a year!

Talk to our specialists! They will present to you interesting solutions, some of which may sound surprising, but all of which will certainly have a cost-saving effect



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**We are where you are:
Klüber Lubrication – the world market leader
in speciality lubricants**

- subsidiaries in over 30 countries
- more than 1 700 staff
- products available worldwide

Klüber Lubrication offers expert tribological solutions. Through our worldwide presence, we meet customers' needs reliably and on time. We supply tailor-made speciality lubricants to customers from nearly all branches of industry and around the world – oils, greases, bonded coatings, pastes and many more. Over 80 years of experience, industry-specific know-how, and exceptional test facilities all help to optimise our solutions.



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