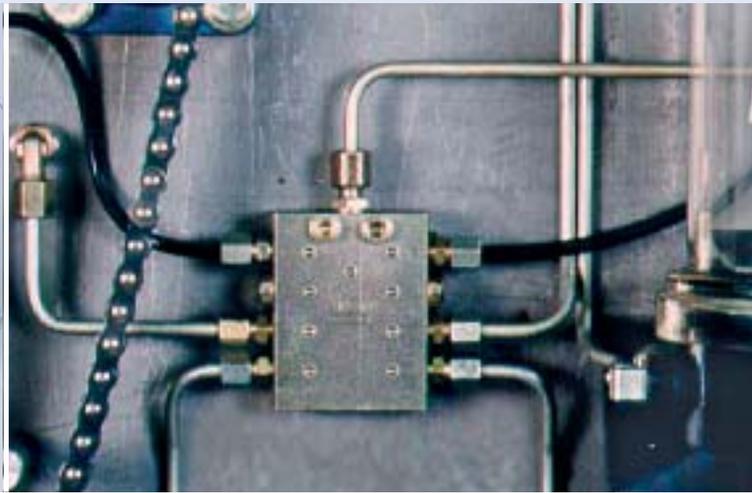


Centralized Lubrication Systems for Renewable Energy Production



- Biofuel
- Geothermal
- Wood/Wood Pellets
- Hydro Power
- Wind Energy

Lincoln Centralized Lubrication Systems



The Quicklub Progressive System - Ideal for Individual Machines or Group of Machines

Economical & Reliable

Quicklub Systems have been designed to meet the toughest requirements of machine lubrication with grease or oil. Their operation is based on the reliable progressive principle in which the lubricant is dispensed by a piston pump via progressive plunger metering devices to the lubrication point. The lubrication occurs in metered, timed intervals at a maximum pressure of 350 bar. Thus the lubrication of bearings with high back-pressures is also guaranteed. The pump can serve up to three independent lubrication circuits, each with its own pump element, consisting of numerous lubrication points. The system is easy to monitor and ensures that the right quantity of grease is supplied to the lubrication points.

SSV D - The New Metering Device

SSV-D metering devices are adjustable per outlet pair thus enabling an accurate matching to lubricant requirements. The metering occurs within the metering block via metering screws that are available in 10 different sizes.

Lincoln Lubrication Systems are Always Individually Matched to the Special Requirements of the Application

Lincoln offers a worldwide Sales and Service net based on five technical support centers on three continents, and a network of several hundred system houses and distributors supported by regional sales and service offices. Lincoln customer service includes consulting, engineering and planning of customer-oriented systems, installation and start up of lubrication systems on site, customer training, and after-market service - worldwide.

QLS 401 Compact System for Grease up to NLGI Class 2

The QLS 401 is a complete lubrication system that includes all necessary monitoring and control functions. All components including an internal over-pressure valve or low-level indicator (optional) are part of the complete package. The comprehensive list of standard features is a remarkable characteristic of the QLS 401. The integrated, all-in-one system concept reduces installation time and costs. The QLS 401 is designed for all industrial and mobile applications. Up to 18 lubrication points can reliably be supplied directly from the pump and monitored at an affordable price.



EMAS

VERIFIED
ENVIRONMENTAL
MANAGEMENT

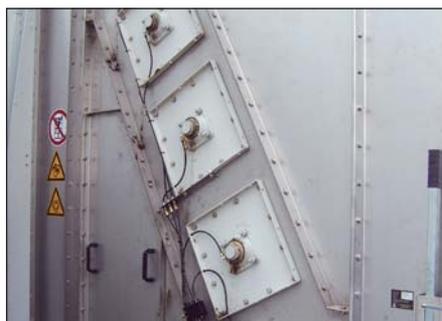
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Biofuel Systems

Lubrication points of biofuel systems are still often lubricated manually - a tedious, time consuming task. Additionally, the possibility that hidden points are neglected is high. And it is sometimes not even possible to access the cumbrously located lubrication points in the stirring unit and fermenter - not to mention the accident risk.

Lincoln automated lubrication systems provide the ideal solution. The robust and reliable Lincoln systems are ideally suited for applications in demanding biofuel system environments.





Fabrication of Wood Pellets

Lincoln centralized lubrication systems are successfully used for the lubrication of machinery and systems in the complete manufacturing process of wood pellets. This begins with the raw material in the forestry industry



where Lincoln systems have long been used. In saw mills and wood pellet factories, Lincoln systems reliably lubricate the bearing of discharge compactors and granulators.



In addition, Lincoln offers specialty lubrication systems that are best-suited for conveyor chains, bearings of transfer stations and shredders.

Centralized Lubrication Systems for Renewable Energy Production

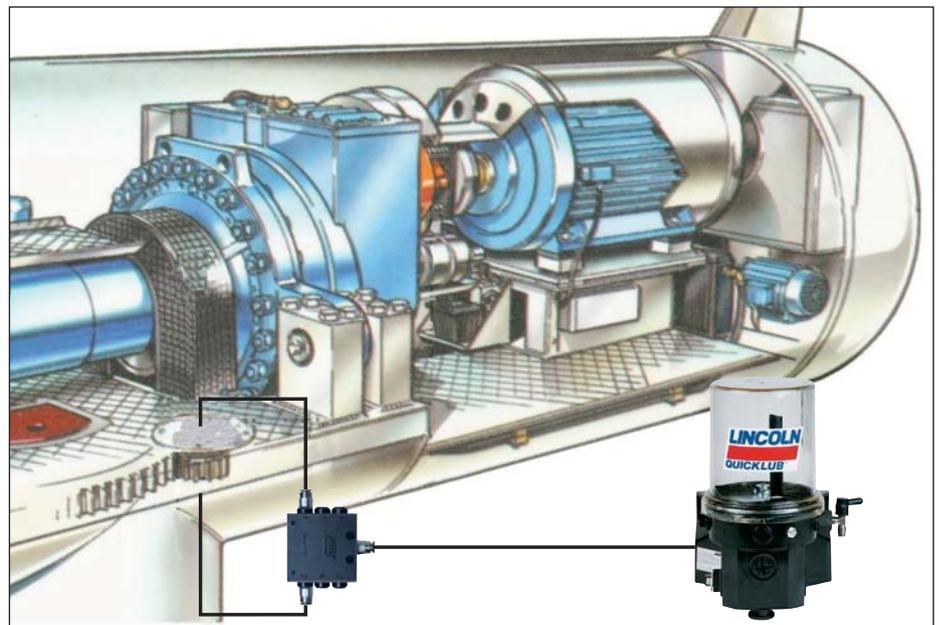


Wind Turbines

The solution for every sector

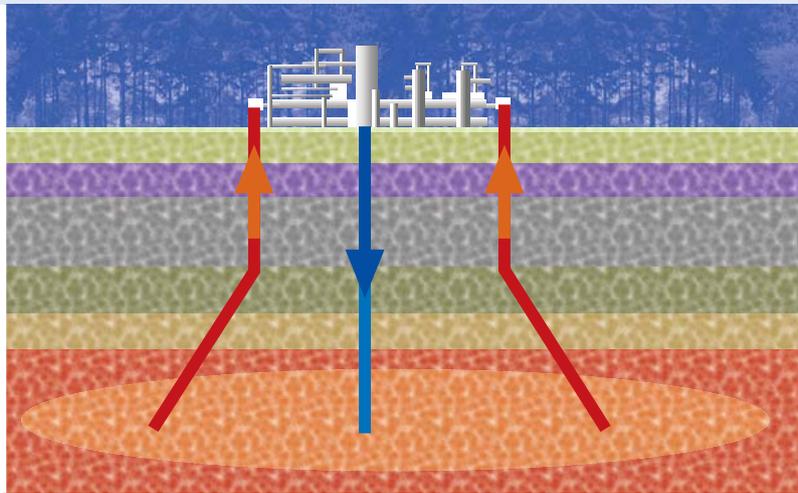
Regardless of the wind turbine's design, several bearings and drives are required as well as the appropriate lubrication system.

Proper lubrication simplifies maintenance and extends the time between service intervals and protects from atmospheric conditions.



Expensive unplanned repairs and downtime are avoided and the service life of the wind turbine is increased. According to studies, lubrication systems are amortized with 1.5 to 3 years.

Lincoln lubrication systems offer custom-tailored solutions for blade bearings, main bearing, yaw bearing and the generator. The product spectrum is supplemented with spray lubrication systems and lubricating pinions for gear drives.



Hydro Power

Reliable lubrication is essential for hydro power plants and turbines that operate around the clock.

A regular supply of lubricant builds up a grease collar on the bearings, thus preventing the ingress of water. Lincoln centralized lubrication systems have reliably been used for decades in the lubrication of turbines. Maintenance tasks, predominantly with manual lubrication, are kept to a minimum. Especially for hydro power systems that are remotely operated, and where the time between service intervals and inspections from maintenance personnel is long, the usage of fully monitored lubrication systems is best suited



Lincoln lubrication systems can operate with biodegradable lubricants. Please inquire with us.

Geothermal

The Hot-Dry-Rock Principle

Heat generation occurs in a closed water circulation network. An injection pump forces water (blue) into a heat reservoir. The water is warmed up on craggy rock and is pumped to the surface (red). On the surface, heat exchangers extract the energy from the water. The GEIE geothermal plant in Soultz/France uses a lubrication station with a Lincoln high-pressure multiline pump type P215. This unit lubricates the guide bearings of the expansion pipe in the supply line.



Geothermal Power Plant in Soultz/France