

your global specialist

Special knowledge

Electric motors

Automatic lubrication systems in use



Automatic lubrication systems

Trouble-free operation

Improved reliability, reduced maintenance costs and less downtime are the keys to electric motor profitability. For electric motors to run reliably at high speeds in day-to-day operation, they must be adequately lubricated. Since many motors are located in remote, hard-to-access, and dangerous areas, they are not lubricated according to manufacturer's recommendations.

Automatic lubrication systems from Klüber Lubrication reduce bearing wear by providing a continuous supply of fresh lubricant. This prevents over-lubrication, lubricant starvation and contamination. All over the world, Klüber Lubrication systems are used on electric motors to prevent premature bearing failures.



Challenges



Re-lubrication, why?

- Lubricant oxidation causes lubricant quality to deteriorate
- Consumption of lubricant caused by leaks and evaporation
- Lubricant is washed out at the lubrication point
- Lubrication is spun off by moving parts and must be replaced regularly for proper bearing lubrication

After-effects

Bearing failures due to poor manual lubrication practices lead to unplanned down-time and production losses.

- Increased maintenance costs due to premature bearing failures
- Significant down-time costs where equipment redundancy is low

Common electric motor lubrication problems

There are two main problems associated with manual lubrication: Long, inconsistent lubrication intervals and too much lubricant added too quickly at one time.

- Bearing failure and possible fire hazard caused by over-lubrication
- Insufficient lubrication leads to bearing damage

Risks

Electric motor manufacturers generally recommend bearings to be re-lubricated while motors are running. But, motors are often located in dangerous and difficult to access places.

- Work-place safety cannot be guaranteed
- High risk of accidents

When to use which lubricant?

Manufacturer's guidelines for re-lubrication amounts and intervals can be found on the electric motor nameplate which can be found on most motors.

Speed	Base oil	Consistency	Oil discharge
high	thinner	more solid	high
low	thicker	softer	low

Solutions

STAR VARIO AND STAR CONTROL TIME

Single-point lubrication systems Klübermatic STAR VARIO and STAR CONTROL TIME / IMPULSE are available in two different sizes (120 cm³ oder 250 cm³). They are recommended for the lubrication of different types of bearings requiring different lubrication amounts.

PRO MP-2 / PRO C MP-2

Lubrication systems perma PRO MP-2 and PRO C MP-2 are available in two different sizes (250 cm³ and 500 cm³). Each system can supply two lubrication points with the same amount of lubricant independent of counter pressure.

PRO MP-6 / PRO C MP-6

Lubrication systems perma PRO MP-6 and PRO C MP-6 are available in two different sizes (250 cm³ and 500 cm³). Each system can supply up to 6 lubrication points with the same amount of lubricant independent of counter pressure.



In order to select the most suitable lubrication system for your motor, please check your motor's re-lubrication fixtures. We will be happy to assist you in finding the best solution for your application.



(left)
Main equipment:
Gravel industry
Lubrication system:
1x Klübermatic STAR VARIO 120 cm³
per lubrication point

(right)
Main equipment:
Power plant
Lubrication system:
1x Klübermatic STAR VARIO 120 cm³
per lubrication point

Benefits

What are the benefits for you?

- Permanent and constant lubrication while the machine is running, as recommended by manufacturer
- Optimal lubricant supply to lubrication point, resulting in less down-time
- Active contribution to environmental protection and work-place safety

	Product characteristics	Advantages	Benefits
economical	Different discharge periods Klübermatic STAR product range: 1, 3, 6 or 12 months perma PRO product range: 1 day up to 24 months	Precise and customized lubrication intervals and therefore also ideal for high grade lubricants	Optimized supply of lubrication points and minimized material / personnel costs at the same time
	Electromechanical lubricator consisting of drive unit and LC unit	Drive unit can be re-used several times	Short ROI through reduced follow-up costs
	perma PRO MP-2 / PRO MP-6: Central supply of several lubrication points with one lubrication system	Little maintenance work required due to simple exchange without tools	Saves time, minimizes operational errors, reduces costs
technical	Klübermatic STAR VARIO perma PRO MP-2 / PRO MP-6 Battery operated	No cable laying necessary = faster and safer mounting at exposed positions	Lubrication of hard-to-access lubrication points. Easy to retro-fit.
	Klübermatic STAR CONTROL IMPULSE / TIME perma PRO C MP-2 / PRO C MP-6: External power supply from the machine	Automatic feedback signals from the lubrication system via connection to the machine control	High equipment availability through optimized lubrication control and prevention of machine down-time. Simple connection to a fault monitoring system
	Automatic, permanent and continuous lubrication while motors are running	Prevents over-lubrication, thus no excess lubricant entering motor compartment - fire hazard!	Reduces machine down-time caused by manual lubrication
work-place safety	Lubrication systems cover a large range of applications	Enables lubrication of hard-to-access lubrication points	Installation of lubrication systems at safe-to-access places improves work-place safety
	Remote mounting of lubrication systems with tubes possible	Installation of lubrication systems outside of dangerous areas	Minimizes the risk of work-place accidents

Klüber Lubrication – automatic lubrication systems

Klüber lubrication systems for electric motors

Klüber products are used on electric motors all over the world. They guarantee reliable, automatic re-lubrication of motor bearings and seals.

Take advantage of the benefits lubrication systems from Klüber Lubrication offer:

- 24 hour operation
- Simple installation
- Easy, tool-free exchange
- Requires little mounting space
- Tough systems - either battery operated or machine controlled
- Customized supply of fresh lubricants to lubrication points

Questions?

Visit our home page www.klueber.at or contact our experts directly. Just send an e-mail to engineering@at.klueber.com.

Applications for automatic lubrication systems

Bearings

Chain drives

Conveyor systems

Electric motors

Linear drive systems

Mills / crusher

Open gears

Paint finishing systems

Presses

Pumps

Sliding guides

Ventilation systems / blowers



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Klüber Lubrication – your global specialist

Our passion is creating innovative tribological solutions. Through personal support and consultation, we help our customers to be successful, around the globe, in every industry and in every market. By utilising complex engineering concepts and experienced, competent employees, we have mastered the growing demand for high-performance, cost-effective special lubricants for over 80 years.



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