



**AUTOMATIC LUBRICATION
SOLUTIONS FOR
MINES & QUARRIES.**

WWW.MEMOLUB.COM

MINING & QUARRY EQUIPMENT CHALLENGES.

Mining operations demand unparalleled durability from equipment, operating under extreme loads, fluctuating temperatures, and pervasive contamination. The mining industry, in particular, presents significant challenges for both workers and machines. Spread-out equipment, insufficient staff, tough ambient conditions, and cost pressures continuously challenge quarry operators and employees. These demanding environments result in hard-to-reach and dangerous lubrication points, extreme operating conditions (including sludge, dust, dirt, temperature changes, and vibrations), and high personnel costs due to complex and dispersed machinery setups. Inadequate lubrication under these conditions can lead to several detrimental consequences, including:



UNPLANNED DOWNTIME

Costly machinery failures disrupting productivity, leading to delays and increased operational costs.



DUST CONTAMINATION

Dust causes early wear of key components, leading to frequent replacements and higher maintenance costs.



SAFETY HAZARDS

Manual lubrication in hazardous locations exposes workers to extreme conditions, increasing the likelihood of workplace injuries.



LUBRICANT MISAPPLICATION

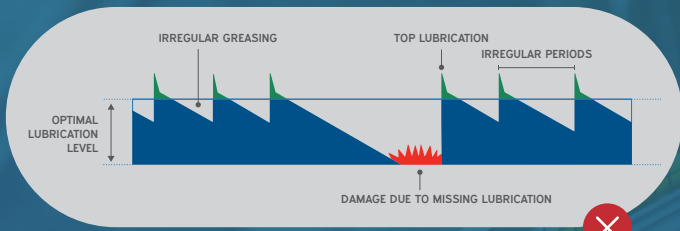
Under-lubrication can cause serious mechanical inefficiencies, such as excessive friction, overheating, and energy waste.



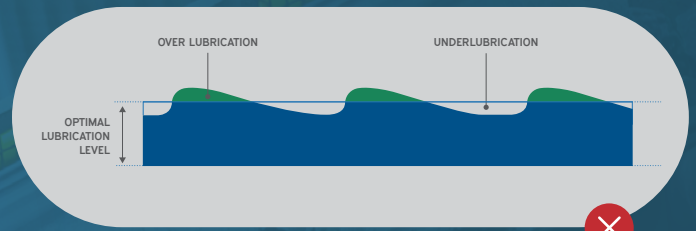
ENVIRONMENTAL CONTAMINATION

Lubricant spills and mismanagement can contribute to ecological harm, requiring costly cleanup operations and compliance with stringent environmental regulations.





Manual greasing.



Automatic lubrication systems of the first generation.



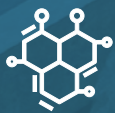
Based on your application, we will work with you to recommend the safest, most reliable, most cost-effective and most environmentally friendly lubrication system and advise you on the right lubricant, quantity, frequency and location to optimize your lubrication.

The image shows four Memolub automatic lubrication systems of different sizes and colors (yellow, orange, red). To the right is a graph showing a blue area representing lubricant level over time with regular, consistent peaks. A vertical green bar indicates a 'SYSTEM SHUTDOWN' where the lubricant level drops. A vertical line on the left marks the 'OPTIMAL LUBRICATION LEVEL'.

Memolub automatic lubrication systems.



In the mining industry, Memolub not only protects critical machine components but also preserves the quality of the lubricant. Excessive pressure in lubrication systems can cause oil separation, reducing effectiveness. Back pressure depends on factors like tubing diameter, lubricant type, and ambient temperature, but the key factor is the speed-to-pressure ratio during lubricant expulsion. Memolub's patented design eliminates this issue, ensuring lubricant reaches critical points without excessive pressure. This maintains the lubricant's integrity, providing superior protection for mining equipment and enhancing overall operational efficiency.



THE RIGHT TYPE OF LUBRICANT



THE RIGHT QUANTITY OF LUBRICANT



THE RIGHT FREQUENCY OF LUBRICATION

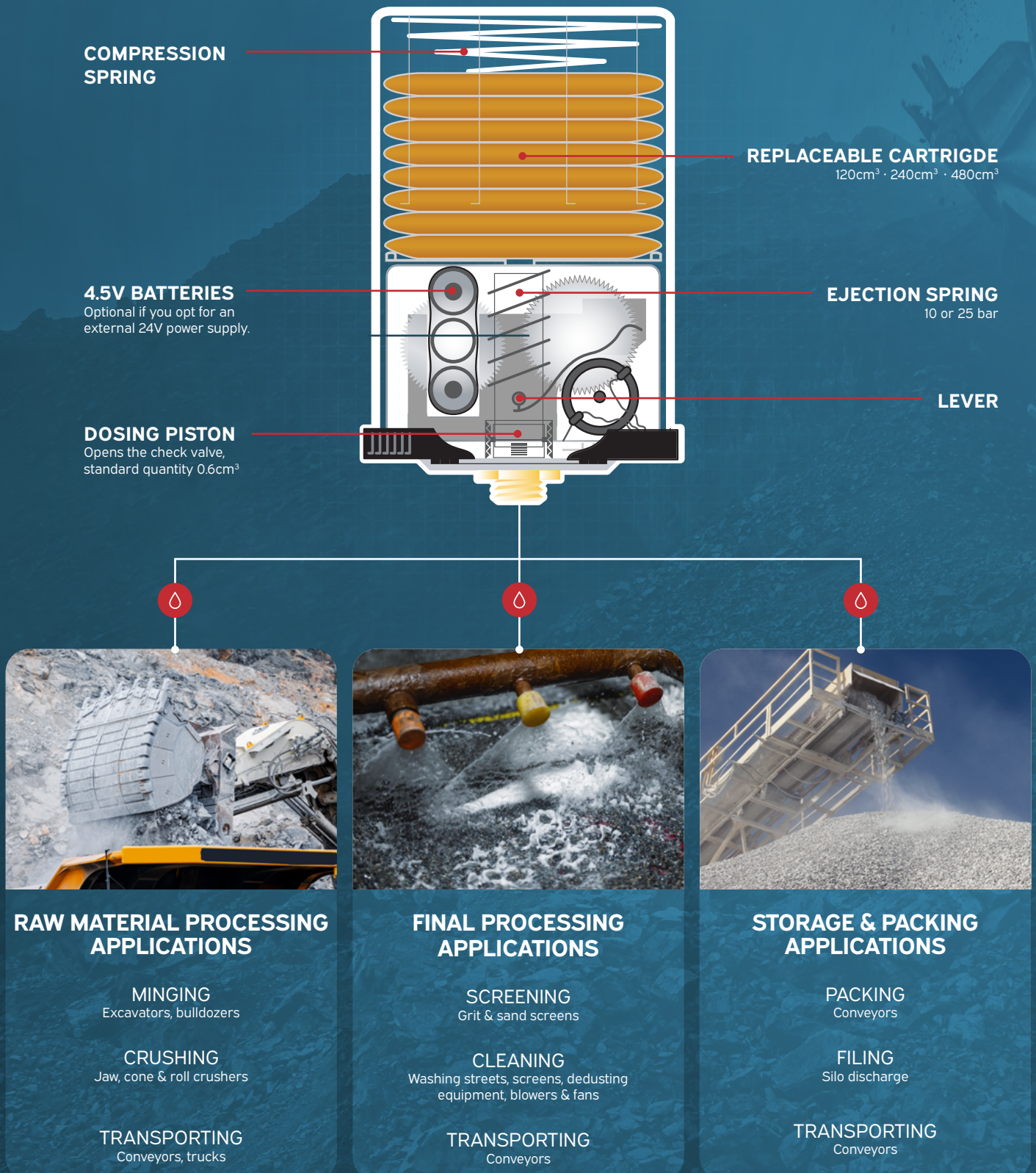


THE RIGHT LOCATION OF LUBRICATION

EFFICIENT LUBRICATION = COST SAVINGS

A PROVEN TRACK RECORD IN MINES & QUARRIES

Memolub offers industry-leading single- and multi-point automatic lubrication systems, setting the standard for electro-mechanical lubricators in the textile industry. Designed for the demanding conditions of high-speed textile production, Memolub ensures precise, consistent lubrication, reducing wear, contamination, and downtime across various applications.



CASE STUDY

LUBRICATING A MECHANICAL BUCKET EXCAVATOR CYLINDER.

A quarry operating a METSO Locotrack LT 125 mobile crusher faced ongoing issues with manual lubrication of key components, including jaw holder bearings, the coupling, and conveyor rollers. Due to the machine's compact design, access to these lubrication points was difficult, leading to irregular greasing, increased bearing wear, and the risk of costly unplanned downtime.

To resolve this, the site installed MEMOLUB HPS automatic lubricators to deliver precise and reliable lubrication without manual intervention. The jaw bearings were fitted with units set to a monthly schedule using Castrol Tribol GR 100-2 PD. The coupling and conveyor rollers were serviced with a three- and six-month cartridge replacement schedule, respectively, using Castrol Tribol GR 400-2 PD and a two-point distribution system for the conveyors. This tailored setup ensured each component received the correct lubricant at the optimal frequency, regardless of accessibility.

The automated system provided consistent lubrication and significantly reduced manual servicing. Labor related to lubrication dropped by over 90%, bearing failures were eliminated, and technician safety improved due to reduced exposure to hard-to-reach areas. The investment delivered a full return within the first year, thanks to increased reliability, fewer breakdowns, and lower maintenance costs.



CASE STUDY

AFFORDABLE LUBRICATION FOR 84 CRITICAL STACKER BEARINGS.

A quarry site operating an industrial stacker faced a lubrication challenge during the commissioning of a new handling installation. The equipment included numerous moving parts—such as conveyor drum bearings, rollers, and pivot shafts, resulting in 84 lubrication points per machine, across two stackers.

A centralized dual-line lubrication system was considered, but budget constraints made it unfeasible. Manual lubrication was also impractical due to the number and location of the points, making regular maintenance inefficient and time-consuming.

As a solution, 18 MEMOLUB HPS automatic lubricators were installed per stacker, configured as single-point systems or with progressive distributors depending on the application.

The MEMOLUB setup ensured consistent, automated lubrication at a cost of under €100 per point, less than half the €250 per point estimated for a dual-line system, delivering reliable performance at significantly lower cost.



SCAN TO READ MORE MINING & QUARIES
INDUSTRY CASE STUDIES ON OUR WEBSITE.



OUR SOLUTIONS FOR MINES & QUARRIES



HPS HPS PLUS



MEMOLUB HPS SERIES: THE MOST VERSATILE AUTOMATIC LUBRICATORS AROUND.

- Battery powered.
- 25 bar ejection pressure.
- Up to 8 outlets.
- Remote installation up to 8 m.
- 7 settings.
- 120cc, 240cc, 480cc, 500ml
- Optional build-in visual feedback.

LUBRICATION, AUTOMATED.

The Memolub HPS Series is a range of versatile electromechanical lubricators that can be installed on a single lube point or coupled with a progressive distribution valve to lubricate up to 8 points. The Memolub HPS and Memolub HPS Plus lubricators automatically delivers a small, precise amount of lubricant at regular intervals for a continuous supply of fresh lubricant directly to your lube point.

VISUAL FEEDBACK AS A PLUS.

The newly added MEMOLUB HPS PLUS models include an integrated visual feedback system, providing clear indicators of operation and alerts for any issues, ensuring reliability and ease of maintenance across a wide range of applications.



ONE ONE PLUS



MEMOLUB HPS SERIES: LUBRICATION IN DIFFICULT ENVIRONMENTS MADE EASY.



- Battery powered.
- 10 bar ejection pressure.
- 1 outlet.
- Remote installation up to 2 m.
- 4 settings.
- 240cc, 500ml
- Optional build-in visual feedback.

ENGINEERED FOR DIFFICULT ENVIRONMENTS.

Memolub ONE Series automatically delivers a small and precise amount of lubricant at regular intervals for a continuous supply of fresh lubricant directly to your lube point and is ideally suited for application in difficult environments where the lubricant has to play an even more protective role than elsewhere.

VISUAL FEEDBACK AS A PLUS.

The newly added Memolub ONE PLUS models include an integrated visual feedback system, providing clear indicators of operation and alerts for any issues, ensuring reliability and ease of maintenance across a wide range of applications.



EM EM^{PLUS}



MEMOLUB EM SERIES: SOLUTION FOR CONTROLLED MICRO-LUBRICATION.



- Battery powered.
- 10 bar ejection pressure.
- 1 outlet.
- Remote installation up to 2 m.
- 2 settings.
- 120cc
- Optional build-in visual feedback.

MICRO-LUBRICATION, REINVENTED.

The MEMOLUB EM series is a range of battery powered, self-contained automatic lubricators designed for controlled micro-lubrication. It is specially suited for applications requiring frequent but limited lubricant volumes: small bearings, linear guides, chains, electric motors, etc.

VISUAL FEEDBACK AS A PLUS.

The newly added MEMOLUB EM^{PLUS} models include an integrated visual feedback system, providing clear indicators of operation and alerts for any issues, ensuring reliability and ease of maintenance across a wide range of applications.



DS



MEMOLUB DS SERIES: THE LOW PRESSURE SYSTEM THAT PRESERVES LUBRICANT PERFORMANCE.



- 24V powered.
- 70 bar ejection pressure.
- Up to 20 outlets.
- Remote installation up to 20 m.
- PLC driven settings if desired.
- Flexible pumping cycle settings.

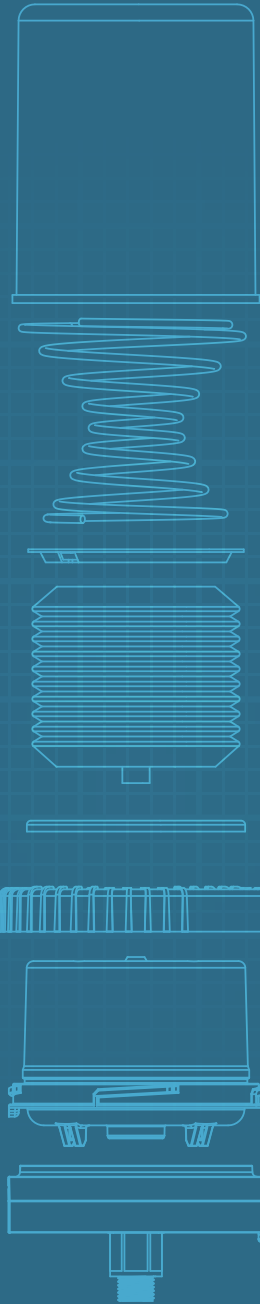
A HIGH PERFORMANCE PUMP POWERED BY COMPRESSED AIR.

MEMOLUB DS's dosing pump is patented and powered by external compressed air supply. The 2 extra air outlets allow you to place additional pumps in series, making the system super scalable. Depending on the settings, the daily output of the pump can vary between 2,25cm³ and 648cm³. The low pressure pump of this system avoids clogging.

MULTI-FLOW, MULTI-PRODUCT, MULTI-POINT.

MEMOLUB DS allows you to adjust the flow setting of every individual pump within your lubrication system. The system is thanks to MEMOLUB custom made accessories usable with all standard lubricant packagings and can handle unlimited number of different lubricants per installation. Lubricate up to 20 points per pump and install the system up to 20 meters from the lubrication point.





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