Ecoluber®

Applications Snapshot:

Mining & Minerals



Ecoluber Advantages

Diminishes

Un-predetermined depreciation schedules and impeding breakdowns

Minimizes

Basic stresses that cause critical path machinery breakdowns

Increases

Safety of workers, asset reliability, efficiency and key equipment performance

Prolongs

Useful life of equipment and its overall residual value



The Ecoluber[®] is an ideal fit for the Mining & Minerals Exploration Industry...

Mining equipment requires a higher demand for lubrication - particularly due to the high volumes of dust and debris that can significantly hinder equipment's operational efficiency and potentially shut down your operations – costing thousands in repairs and downtime.

The unit's 1,000cc reservoir is able to support a greater volume of lubrication requirements. It's rugged design allows the Ecoluber® to withstand vibrations and dust buildup, making it extremely effective in providing continuous fresh lubrication to pumps, motors, conveyor belts of bulk goods, bearings on drive rolls, as well crushing machines. With the Ecoluber, all critical components are lubricated, regardless of location or difficulty of access – thus virtually eliminating the hazards associated with manual lubrication practices within the Mining industry.

Importance of Lubrication

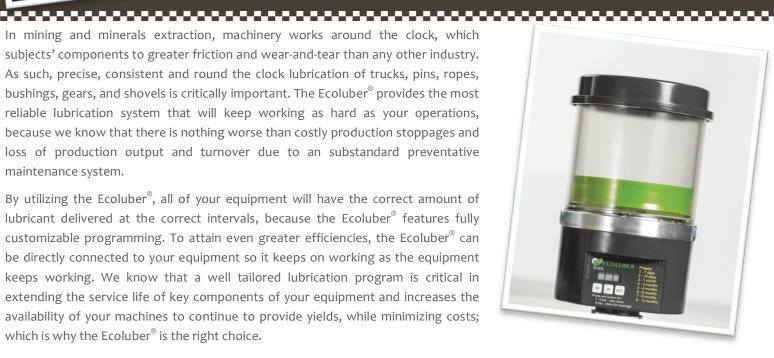
Less wear on the components means better performance and extended equipment & machinery life with fewer breakdowns, less downtime, reduced replacement and maintenance costs.



The Ecoluber® has been designed and developed for a wide range of preventative maintenance applications within the Mining & Minerals Extraction industry...

In mining and minerals extraction, machinery works around the clock, which subjects' components to greater friction and wear-and-tear than any other industry. As such, precise, consistent and round the clock lubrication of trucks, pins, ropes, bushings, gears, and shovels is critically important. The Ecoluber® provides the most reliable lubrication system that will keep working as hard as your operations, because we know that there is nothing worse than costly production stoppages and loss of production output and turnover due to an substandard preventative maintenance system.

By utilizing the Ecoluber®, all of your equipment will have the correct amount of lubricant delivered at the correct intervals, because the Ecoluber® features fully customizable programming. To attain even greater efficiencies, the Ecoluber® can be directly connected to your equipment so it keeps on working as the equipment keeps working. We know that a well tailored lubrication program is critical in extending the service life of key components of your equipment and increases the availability of your machines to continue to provide yields, while minimizing costs; which is why the Ecoluber® is the right choice.



Technical Data (Continued on pg. 3)

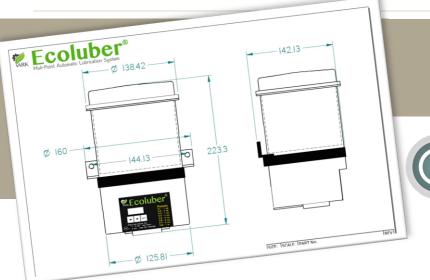


- Class I Div II Standard for Groups A, B, C, D
- Class II Div II Groups F and G
- Class III Hazardous Locations
- IP 66 rating

Hazardous Locations conforms to CSA22.2 No.213-M1987 (R2013) and ANSI/ISA 12.12.01 (2011) Non-hazardous Locations conforms to CSA22.2 No.68-9 and UL 73-10







Technical Data Continued



Lubrication Intervals/ Settings

The Ecoluber $^{\circ}$ has 8 Presets for equally dispensing 1,000 cc that include:

- 1 Week
- 2 Weeks
- 1 Month
- 3 Months
- 4 Months
- 6 Months
- 9 Months
- 1 Year

User Interface

At only 5 - 20% of a company's maintenance budget, lubrication systems provide the greatest benefits (ROI) by prolonging the operational life of its key assets



combined lubricant amount of 0.04cc to 3.98cc per interval; scheduled at a precise amount of minutes, hours or days.

In addition, the Ecoluber® is fully customizable at dispensing

System settings and configuration are input through easy-touse push button controls and interactive LED screen



Power Sources

- Internal 12V DC Lithium battery
- Internal 12V DC Alkaline battery (Non-hazardous locations only)
- Class 2 External Power Source (Non-hazardous locations only)



Remote Installation

The Ecoluber®'s unique patented pumping design allows it to be installed far away from the point of lubrication, thus improving safety and minimizing required shutdowns associated with servicing hard to reach bearings. It can be installed at over: (With zero loss of performance)

- 50+ Feet (5/16" OD Tubing)
- 15+ Meters (12 mm OD Tubing)



Lubricant Type

- Any Oil Lubricant
- Grease NLGI Grades o 3



Operating Principal

Electromechanical Gear Pump



Serviceable Lubrication Points

Customizable between:

- 1-4 points utilizing Ecoluber®'s built-in distribution
- 5-48 points utilizing additional progressive distribution blocks



Temperature Range

Depending on your environmental requirements the Ecoluber® has customizable power options to allow for operations under the following temperature ranges:

- Normal Operating Temperature Range: -10 $^{\circ}$ C to 30 $^{\circ}$ C (14 $^{\circ}$ F to 86 $^{\circ}$ F)
- Extreme Operating Temperature Range: -40°C to 60°C (-40°F to 140°F)



Pressure Built-Up

1,000 psi max per outlet



Lubricant Volume

The Ecoluber's refillable reservoir holds 1,000 cc (33.81oz.) of grease or oil.



Ecoluber® is capable of servicing multiple remote bearings on conveyors and crushers...



Eco-Friendly Maintenance Solution

- ✓ Re-usable replacement cartridges
- Made from medical grade recyclable material
- ✓ Optimal precision dispensing minimizes environmental waste

Why use the Ecoluber®?

The cost for a machinery or equipment breakdown is oftentimes more than just the cost of labor and materials to make the necessary repairs. In reality, the actual cost for a breakdown is between 4 to 15 times over the cost of regular maintenance due to loss of production and inefficient downtimes.

The greatest benefit for a maintenance program in utilizing an automatic lubrication system is that it allows machinery operators to focus on productivity, operational excellence, and meeting deadlines instead of time-consuming maintenance tasks, such as manual lubrication.

Let your skilled workforce focus on business processes that generate revenues, and let Ecoluber® take care of saving you money.

Ecoluber® helps companies find the perfect balance between higher-production and lower-environmental impact...

Contact Us

Due to competitive demands, your industry is under increased pressure to be more efficient by improving "uptime" and diminishing "downtime". Increased regulations that focus on the environment and safety are additional considerations.

To support your ever increasing demand for improved sustainability, productivity, safety measures and operating costs, the Ecoluber® deserves your attention.

Please contact us to better understand all the benefits and answer any questions that you may have regarding upgrading your company's lubrication maintenance procedures to include the innovative Ecoluber® Multi-Point Automatic Lubrication system.

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