

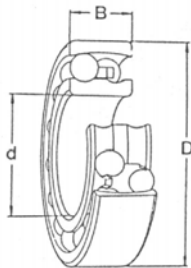
Frequently Asked Questions

Q.1 How to check if the lubricator is working in normal condition?

- Ans.: 1.1 To test whether Easylube is in a working condition, set all four DIP switches to **ON** position in **TEST** mode, the Easylube will operate to press red piston downward. A small amount of grease (0.417cc of 150ml model) will be discharged from bottom outlet.
- 1.2 Trigger an alert for troubleshooting is a very important issue for maintenance engineer, as it enables them to ensure that bearings are well lubricated. Then You may check for lubricator warning light as well.

Q.2 How do I know the correct lubrication volume and interval on each bearing?

- Ans.: 2.1 The amount of grease is depending on the bearing size and its housing dimension, but the re-lubrication interval is varying according to the operating conditions, such as temperature, contamination, moisture, vibration and shaft orientation.
- 2.2 If re-lubrication instructions are available, follow the interval to regulate the lubrication maintenance according to equipment operating conditions.
- 2.3 If not or you suspect the lubrication amount is inadequate, use the MQL formula to determine the correct amount of grease for each bearing.



$$G = 0.005 \times D \times B \text{ grams}$$

G=grease quantity in grams.
D=bearing outside diameter in mm.
B= total bearing width in mm.

Or

$$G = 0.114 \times D \times B \text{ ounces}$$

G=grease quantity in ounces.
D=bearing outside diameter in inches.
B= total bearing width in inches.

- 2.4 Technically, re-lubrication volume and interval provided by equipment supplier are narrated under normal condition, if a bearing temperature is over 70°C(160°F), the re-lubrication period setting should be reduced by half for every 15°C(27°F) increase in temperature. It is also necessary to increase the feeding interval when there is a risk of heavy contamination.

For example: every 1,000 hrs have to grease 20 gm

- As normally, this lubricator is to set at 10 months(M) lubrication cycle (20 ÷ 1000 × 24 = 0.48 gm per day); but when bearing is **working** at 85°C, and then you have to adjust this lubrication cycle to set at half period, 5 months(M).
- If the same time has risk of heavy contamination, and then you had to adjust setting period at 3 months.



- 2.5 The Easylube® MQL software can effectively assist plant managers, engineers, and maintenance supervisors implement the calculation for the "Grease feeding volume" and the "Re-lubrication interval" based on each application environment and condition.

Q.3 What lubrication condition could you expect to find from a malfunction electric motor? If it requires one stroke of grease gun in 12 hours, can your lubricators deliver such amount to the bearing?

- Ans.: 3.1 All outdated lubricators or manual greasing method is without excessive pressure detection due to this factor; or uncertainty amount of grease to be dispensed into the bearing at the incorrect interval. Therefore under greasing will consume the bearing life, and over greasing increases the risk of grease leakage into the motor windings and churning.
- 3.2 Technically, Easylube automatic monitoring alert lubricator allows user to set different lubrication interval, therefore it definitely possible to deliver the required amount comparatively. For example; one grease gun stroke in 12 hours, set Easylube to 2M lubrication cycle, then Easylube will function accurately to release grease volume of 0.417gm every 4 hours in cycle; equivalence it dispense 1.25gm in 12 hours.

Q.4 What is the largest reservoir size that you have? We probably need to use about 5 ounces per day and we can adjust 5-8 of lubricators together to get 1-2 weeks life before recharging. The period setting table shows the minimum is one month; can we adjust that to one week or less?

- Ans.: Easylube offers two size capacities of 150ml and 250ml lubricator at present. However the issue is how large the lubricating point really is. If you plan to lubricate a huge multiple grease nipples machinery, please review Q.2 illustration.

Q.5 Can a single unit of Easylube supply grease to more than one grease point at the same time?

- Ans.: 5.1 It is not allowed, because how to trigger alarm for abnormality is very important to ensure each bearing is well lubricated. Because if grease dispensing under different conditions of two or more points, how do we know which bearing is getting too little or too much grease?
- 5.2 Somehow the back pressure will keep building up in a bearing; it might be due to the viscosity of grease encountering an unexpected change in density, which trigger Easylube to alert user about a feeding blockage from single lubrication point.
- 5.3 Easylube lubricator intends to ensure the correct amount is greased into a bearing at correct interval; any potential problems are also monitor under warning indication system. In fact, Only Easylube lubricator system could present you this economical way for assuring fully re-lubrication schedule, routinely in the outdoor, indoor, dry, wet, dusty and hazardous location, especially help those often ignored or difficult-to-access points.

Q.6 Can Easylube monitor grease blockage?

- Ans.: 6.1 Common issue of bearing maintenance is by pressure build up in grease housing and channel, hence it causes the grease to turn dull or harden, and Easylube will alert user that a grease blockage has occurred. And the unique Easylube lubricator has a Red light LED indicator to detect any abnormality. Warning light flashes automatically when:

- Grease supply is exhausted Feed blockage occurs
 Excessive system pressure Malfunction
 Low Battery

6.2 Since the warning of occurrence is necessary to ensure the bearing is well lubricated. Technically, you only have to set levers on the switch board to correspond the time period required or switch to higher grade grease which provides excellent service under low oil separation and good pump ability.

Q.7 We want to install the Easylube on a fan which is use as a standby unit, this is to compare Easylube performance between running and standby condition; Our question is, in case the fan stopped, can Easylube detect it from pressure buildup? And when the fan unit runs again, will Easylube release the pressure to start working again? Or need to be manually re-started?

Ans.: In case the fan stopped, Easylube monitoring system will detect the cease and check for grease channel blockage; and CPU of unit will operate automatically as following stated:

- 7.1 The pressure shall built up inside the grease cartridge gradually and this constant accumulate pressure will exceed the internal resistance of grease channel.
- 7.2 If at its maximum pressure, and lubricator still not able to dispense grease into the bearing, then its Press Plate will be released from Red Piston; then the LED indicator will be flashing to warn of "abnormal" status immediately.
- 7.3 But if the fan unit run again during the pressure building stage; Easylube will constrain grease into the bearing to purge out blockage, then start working again in normal.
- 7.4 In case the warning light flashes, maintenance engineer have to check alert cause; after problem solved, the Press Plate needs to be manually re-position and put back battery to resume again.

Note: This is a crucial technology of Easylube system in helping lubrication engineers carry pre-abnormity check and deal with maintenance issue immediately.

Q.8 At what grease balance will MQL software indicate red sign for low level? (i.e. 30ml, 50 ml) When lubricator LED warning light flashes, how can we determine whether is due empty cartridge or problem at grease blockage?

- Ans.: 8.1 The remind of low grease level will appear red sign 15 days before cartridge empty on "Pre-warning monitor" page in the MQL software; the purpose is to inform user to prepare for replacements at earlier stage.
- 8.2 If the lubricator LED warning light flashes, please review Q.6 illustration.

Q.9 How do I know whether grease was inactive or dry out from previous discharged grease?

- Ans.: 9.1 It is common issue that no one knows whether bearings are getting too little or too much grease, whether grease is hardening or lifetime overdue. The issue also include incompatible viscosity of grease, inconsistent release of base oil from thickener when at loading pressure, long period storage, and when use temperature incompatible grease.

- 9.2 Therefore the warning of occurrence is necessary and very important for troubleshooting with Easylube warning condition, to ensure that all bearings are well lubricated.

Q.10 What lubricants do you supply to equipment?

- Ans.: 10.1 Actually, we are successful in promoting the private type of model #2218 Versatility Lithium Complex Grease with low cost consumable cartridge including our service of replacement. This type of grease is operationally compatible with more than 95% bearings needs, except special requirement such as #8318 for Food industry or #1000 SHC synthetic Grease.
- 10.2 Easylube will achieve all maintenance engineers' goals for efficient and proper lubrication with consistent service and low cost of replacement, while nobody else can as of today.
- 10.3 Requiring for the lubricants' DATA & MSDS, please contact your local distributor.

Q.11 Accord to service guide, it states grease cartridge could be replaced. Thus, can Easylube grease cartridge be pre-filled DIY with our own grease? Or must perform by local distributor?

- Ans.: 11.1 Yes, Easylube grease cartridge is able to pre-fill grease with a low cost reusable refilling kit, but it depends on the grease quantity involved and it is according to the concept of DIY (Do-it-yourself) with a few of units only.
- 11.2 Since the grease output of each stroke from manual grease gun is less than 1 ml/cc., a 150 ml grease cartridge will require 150 times stroke, also the air bubbles will exist in the cartridge if it is manually or air pump pre-filled.
- 11.3 It is recommended using replacement from Easylube supplier, because it is design to provide maxi-convenience with low cost to end-users. Most importantly, the quality has qualified by professionals, and also our service team is well trained to provide routine service of replacement and lubrication condition check; it becomes more economical especially when Easylube is applied on a large scale.
- 11.4 Additionally helping user to receive full warranty including lubricant and lubricator performance, thus is the way to reduce operating cost and eliminate any argument on failures between lubricator and lubricant.

Q.12 Can Easylube work in horizontal as well as vertical position?

- Ans.: Horizontal mounting is possible but may not be technically recommended; if the application is at outdoor or at a contaminated area. It is to be bracket mounted to hold Easylube vertically, this remote mounting bracket is for installing Easylube in locations of: hard to access, unstable or insecure, or high temperature equipments.

Q.13 Does Easylube unit have to be mounted upright or is it also ok to install it horizontally or even upside down?

- Ans.: 13.1 Easylube is feasible to be installed at any position, but it is always strongly recommended to install the lubricator at an upright, rigid, and stable position

directly or remove by mounting bracket, besides, always put the protection casing on lubricator especially when installed on outdoor applications.

- 13.2 Please note that Easylube can be mounted up to 15 feet (4.6 meters) away from the application, but ALWAYS keep the number of bends and the length of tube to the minimum, provided only appropriate select grease to equipment that can match required viscosity, consistency and operating temperature.

Q.14 Is there any version of the grease cartridge that can be replaced without removing it from its installed position?

Ans.: No, it must be removed from its installed position to replace grease cartridge and battery. It may consider for your own safety, because heavy industries are the main demand of replacement, we do serve and supply pre-loaded grease cartridge to ensure safety and cost effectiveness to user.

Q.15 Is the maximum output pressure 150psi?

Ans.: To be safe I would count on maximum pressure from 100 psi to 115 psi, though 150 psi is possible. Owing to the higher pressure would cause higher oil separation from lubricating grease and damage oil seal to lose its function. In preventing it, Easylube designs to deliver grease with a balance pressure as low as possible to avoid about issue.

Q.16 Can Easylube work at that low temperature?

Ans.: 0° C ambient temperature is not a problem for Easylube. It is designed for operating in temperature range from -20°C to 60°C but shall accord with low temperature grease. Easylube lubricator's output remains constantly and accurately, this is one of Easylube advantages over gas driven and some other lubricators which fail to maintain in variable temperature accurately.

Q.17 How does Easylube stand up to shake, vibration, and high impact condition?

Ans.: Easylube has been examined and qualified in shaking and vibrating condition up to 3G; it is well functioned in certain shaking and vibration conditions, requiring for certificates, please contact your local distributor.

For more information please visit our website www.easylube.com. If you have any further question or comment, please feel free to contact us by email to service@easylube.com Thank you.