

Why is lubricant Important?

One of the most important things an operator can do for his machinery is to make sure it is properly lubricated. Many people believe that a lubricant is simply used to make things “slippery.” While it is the primary function, there are more advantages to using the right lubricant. In addition to friction reduction, it also reduces the amount of wear that occurs during operation, reduces operating temperatures, minimizes corrosion of metal surfaces, and assists in keeping contaminants out of the system.

Lubricants have many properties that can be mixed and matched to meet your operating needs. For example, there are different chemicals that can be added to allow a machine to efficiently run at extreme temperatures. We can also make a lubricant more effective in protecting machine surfaces under extreme pressures. By looking at the demands of the machine, you can properly identify the type of lubricant best suited for its proper function.

Friction is the force that resists relative motion between two bodies in contact. If friction didn't exist, nothing would ever stop moving. We need friction to function, but there are instances where you want to be able to reduce the amount of friction present. When you rub your hands together, you create heat because of the friction between the sliding surfaces of your hands. Now imagine rubbing your hands together 3600 times a minute – your hands would be on fire! Similar heat is generated by friction in your machinery. If the lubricant in your equipment has not been appropriately selected with standard operating temperatures, load, speed, etc., in mind, catastrophic failure may result.

We lubricate our machinery to minimize the resistance to movement, and as a result, minimize the amount of heat produced. The heat that is produced by the equipment is transferred to the oil so that it may be removed by a lube oil cooler. There are a lot of considerations that must be applied when selecting the type of

lubricant we need to use: viscosity, additives needed, properties, etc. So a lubricant is a substance that reduces friction, heat, and wear when introduced as a film between solid surfaces. Using the correct lubricant helps maximize the life of your bearings and machinery, therefore saving money, time, and manpower, thus making operations more efficient and more reliable.