Deliver Top Quality and Reduce Warranty Claims

90% of bearings fail prematurely - why?
These warranty claims are cutting into your profits.
You can increase bearing life and reduce warranty claims without compromising quality.
The answer? *Innovative lubrication.*

LEARN HOW TO:

- **Save money while protecting your reputation for quality**
- **Reduce warranty claims with fool-proof lubrication**
- **Use lubrication to improve more than bearing life**

LUBRILIFE™

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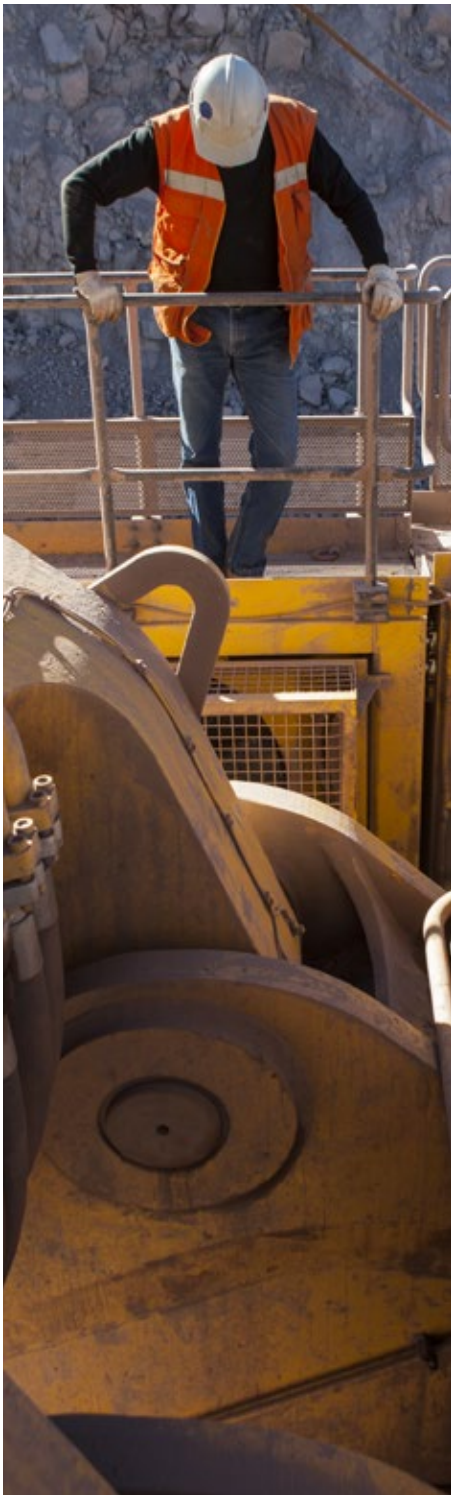
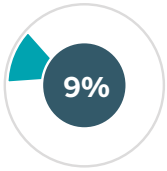


Solid Lube: Make it a Forethought, Not an Afterthought

THE CAUSES OF BEARING FAILURE



SUCCESSFULLY REACH DESIGNED LIFE

FAIL DUE TO FLAWED INSTALLATION

FAIL DUE TO OPERATIONAL FACTORS

Improper lubrication is the number one cause of premature failures in machine bearings. Less than 10% of bearings reach their calculated life span, yet grease is still used in nearly 90% of rolling element bearings. *Solid lubrication has proven to be the better alternative to grease.* It eliminates the guessing game maintenance technicians must use to re-lubricate bearings.

In the food industry, solid lubricants reduce machinery downtime, product loss from contamination, maintenance, and safety hazards - all of which can significantly increase profitability.

Many OEMs are replacing grease in bearing assemblies with solid lubrication. This seems to make good sense but is only partially effective. **Replacing grease with an aftermarket add-on solid lube is not the ideal solution.** Not all solid lubrication is the same, nor is the process with which it is applied. While some risks are mitigated with aftermarket options, there is a better way.

Permanent lubrication - a lubricant added to a bearing before seals, shields, or flingers - lubricates the bearing for life and minimizes failures. Bearing performance can be further improved, contamination further reduced (or eliminated), and you can get even more life out of expensive machinery.

The Permanent Lubrication Solution

No more worry about:

Over/under greasing

Excessive moisture

Contamination

Incorrect viscosity

Incompatibility

Lubrilife has reprioritized how solid lube is applied. It is designed to last for the bearing's entire life without maintenance.

Permanent lubrication allows manufacturers to remove the most significant variable in bearing operation and get the most out of equipment. Baart has designed Lubrilife - our proven permanent lubrication - to be *a manufacturing step, not a modification.*

Bearing reliability begins at the factory. Applying a premier solid lubricant during the manufacturing stage dramatically increases the bearing's performance and life span - no need to worry about excessive moisture, contamination, or incorrect viscosity. Incompatibility, loss of oil, or over/under greasing a bearing are non-issues as well. Permanent lubrication is consistent, meaning bearings last longer and fail less often. The net result is increased customer satisfaction and a significant reduction in warranty claims.

The Game Changing Advantages of Lubrilife

Permanent lubrication as a factory option changes the game. You may be settling for grease lubrication in your bearings. Lubrilife is not just a replacement - it's a revolutionary manufacturing option that diminishes maintenance while protecting the bearing's rolling elements from contaminants.

COMPETITOR
*Seal removed to expose air gaps

LUBRILIFE
*Seal removed to expose superior fill process

A solid fill, no internal gaps.

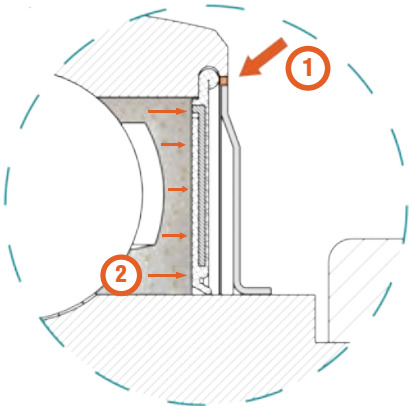
Lubrilife is made of a polymer that fills the bearing's internal space without impeding the rolling elements. There is no lapse in lubrication to rolling elements because Lubrilife has an exceptionally uniform fill resulting in consistent lubrication. This feature sets Baart's permanent lubrication option apart from competitors since both grease and aftermarket solid lubes often contain voids that compromise performance.

The solid fill of Lubrilife adds a significant amount of protection to the bearing components. They are completely sealed in and almost impossible to reach by foreign contaminants. The polymer protects against liquids, keeping the bearing's rolling elements clean and efficient. The contamination that infiltrates greased bearings and other solid lubes will inevitably damage rolling elements. Lubrilife keeps contaminating material out and limits corrosion.

Photos left: Unlike other solid lubricant brands, the Lubrilife process ensures a consistent and complete fill.

This protection is especially evident in high-pressure washdowns. The polymer provides support to the bearing's two factory-installed seals, making them incredibly difficult to unseat.

Digital Rendering



(1) High-pressure sprays can force water into the small gap between the flinger and housing. (2) Lubrilife's polymer - due to its thorough fill - lends support the seal from within, preventing the displacement of the seal and ingress of foreign contaminants.

It's not uncommon for the high-powered spray to contact the bearing seals at the exact 'wrong' angle. Mounted bearings with flingers have a very tiny gap between the outside diameter of the flinger and the outside diameter of the bearing. This gap may look small, but it leaves the seal vulnerable.

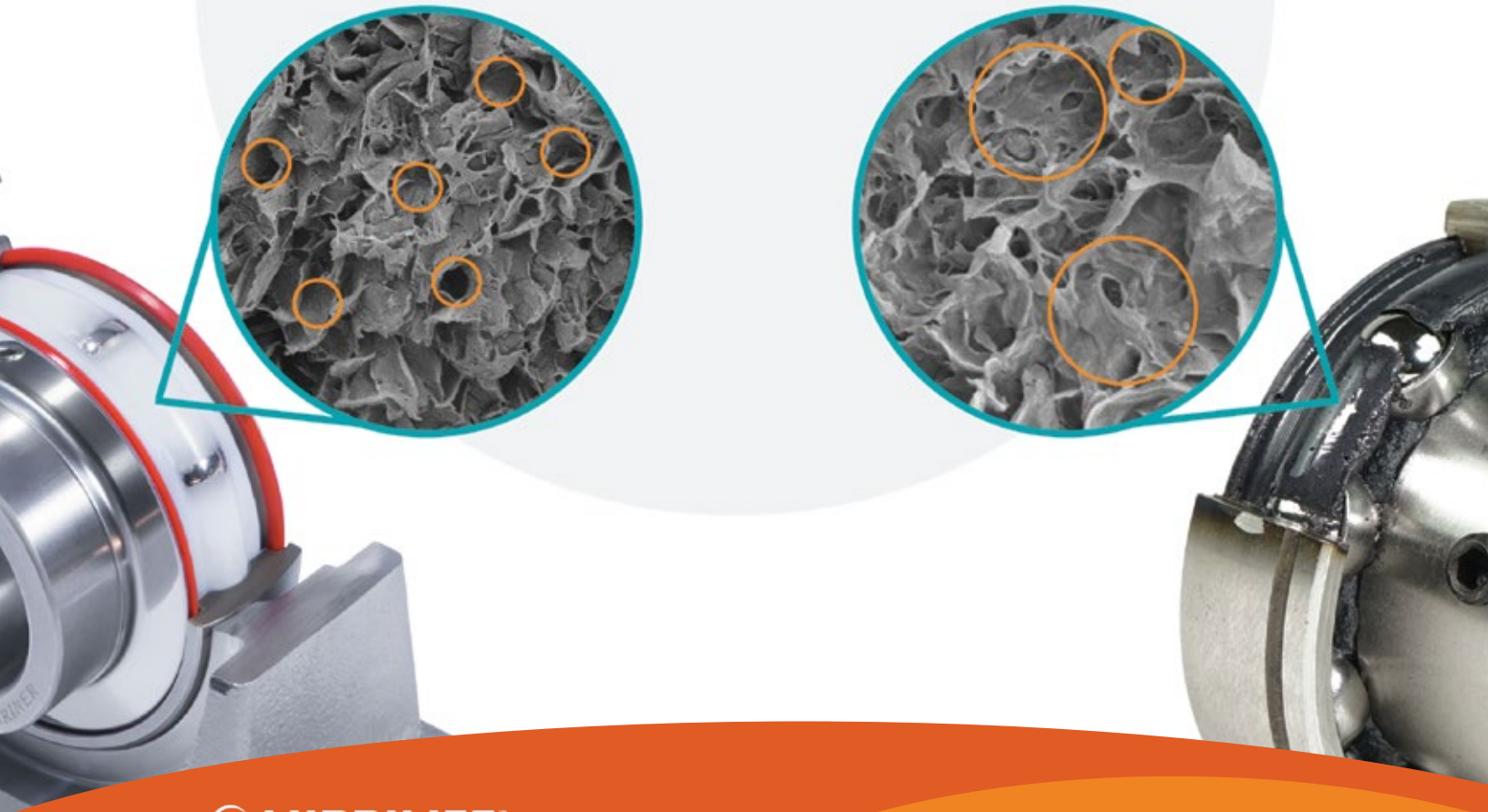
In solid lubes without thorough fills or those containing voids, the spray can hit this angle and unseat the seals. For bearings without flingers, the need for an internally supported seal becomes even more critical. With Lubrilife, the seals are thoroughly supported, preventing this issue from occurring.

Photos below: The Lubrilife polymer structure (shown left, at 20,000x magnification) is designed for superior oil retention and effective lubrication. A competitor's polymer structure (shown right, same magnification) with larger and inconsistent pore sizes will have increased difficulty reabsorbing and retaining oil. Consistent micropore size and distribution make oil retention and delivery much more effective.

Superior lubrication with advanced polymer microstructure.

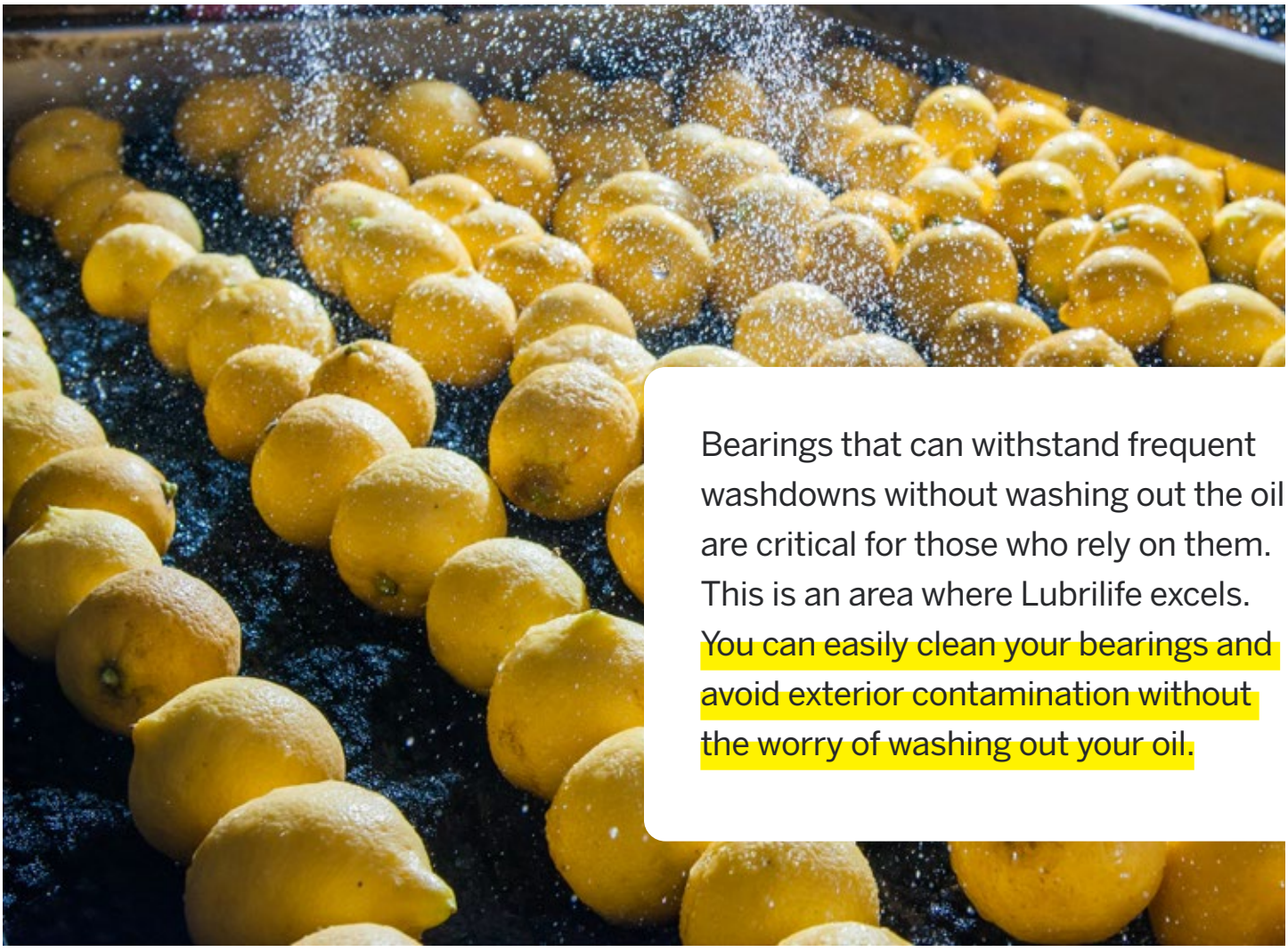
Lubrilife's permanent lubrication is made up of an oil-saturated polymer material with a matrix of uniform micropores designed to release oil during operation. This technology allows the oil-saturated polymer to hold four times the amount of oil in comparison to grease.

This unique microstructure is intentionally designed to optimize pore size for bearing performance and longevity. Oil retained inside the micropores expands when gently warmed by the motion of operation and lubricates the bearing's internals. The oil is then reabsorbed once operation ceases. Lubrilife's even matrix of small micropores enhances oil reabsorption, ensuring maximum oil retention and a significantly longer bearing life span.



In conditions that include heavy contamination (such as agriculture, construction, and aggregate industries), greased bearings can have cleanliness issues, attracting contaminants. When dirt builds up on the exterior of a bearing, it makes infiltration of the interior much more likely. It only takes one small piece of grit to reach the bearing internals to cause a reduction in the expected life.

In comparison, Lubrilife remains well suited for operation in applications with heavy contamination. The complete reabsorption of base oil keeps the bearing much cleaner than one lubricated with traditional grease. With Lubrilife, your lubrication stays inside the bearing where you need it, not outside collecting dirt and grime.



Bearings that can withstand frequent washdowns without washing out the oil are critical for those who rely on them. This is an area where Lubrilife excels. You can easily clean your bearings and avoid exterior contamination without the worry of washing out your oil.

Streamlined components require very little maintenance.

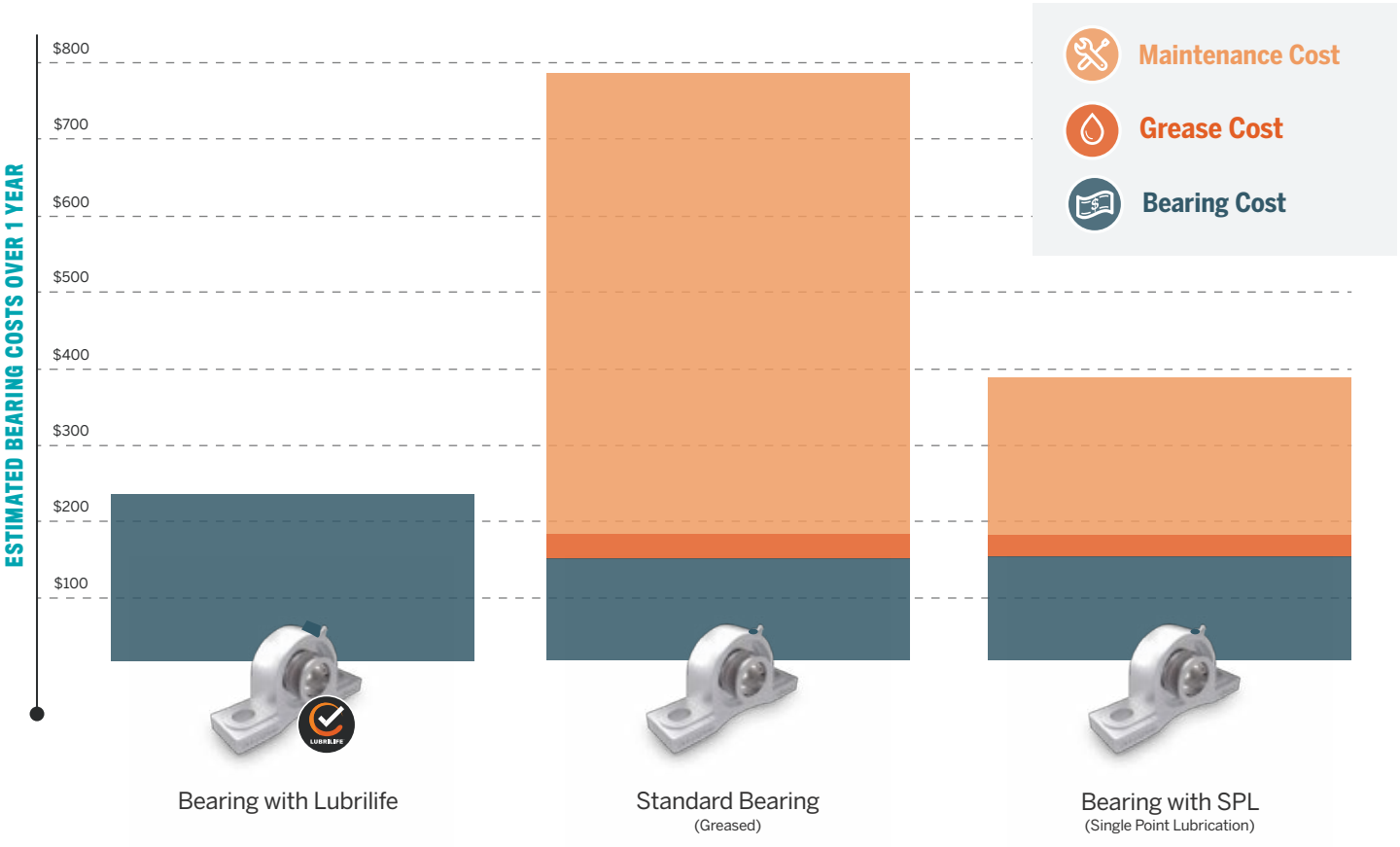
Bearings with Lubrilife have a simple and practical design. There are no grease grooves, housings have no zerks and are not plugged with plastic. Streamlining the components helps the bearings to be much easier to clean and leaves fewer places for bacteria to collect.

Photo above: Lubricated for life means no zerks or grease grooves, which can collect bacteria and contamination.

Graphic below: Because Lubrilife bearings are lubricated for life and maintenance-free, the total cost of ownership is reduced.

The polymer acts as a seal around the rolling elements, denying entry to any materials that do not belong. It is critical in food processing to eliminate contaminants because they may lead to harmful bacterial growth. It is common for biofilms to form on machinery and get into your product. Bacteria like Escherichia coli, Salmonella, and Staphylococcus aureus exponentially multiply until out of control. This can eventually lead to food contamination, loss of product, and the potential for widespread illness if it gets to the consumer. Lubrilife excels in the thorough washdowns that reduce the possibility of bacteria or grease contaminating the end product.

Lubrilife's streamlined components contribute to the life span of your bearing. The simple design is ideal for optimum performance over a more extended period. In comparison to grease, single point lubricators, and other solid lubes - permanent lubrication outperforms. You can save time and money as maintenance personnel will not need to create a schedule to re-grease the bearings. Permanent lubrication limits human error that could compromise your bearing performance.



Graphic below: Our engineers performed a dunk test that involved accelerated oxidization. Our testing shows the difference a complete polymer fill can make in performance.

Bearings with Lubrilife have two factory-installed seals.

Lubrilife permanent lubrication has a considerable advantage over aftermarket options. When solid lubrication is added as an aftermarket modification, lubrication and bearing protection are afterthoughts. By leaving a seal on the bearing during the fill process, there's a limit to how much pressure you can use to apply the polymer; otherwise, it will become unseated. Furthermore, there is no way to confirm how thorough the fill is.

With Lubrilife permanent lubrication, the manufacturing process, lubrication, and bearing protection are all a forethought. The result is a uniform fill surrounding the bearing internals, resulting in no air bubbles, gaps, or voids. Aftermarket solid lube options often have difficulty avoiding the harmful effects of contamination - resulting in polymer degradation, loss of oil, and internal damage.

With only one seal in place to protect the solid lubrication and bearing internals, aftermarket solid lubrication solutions leave your bearings under-protected. The factory-applied seals on bearings with Lubrilife prevent excess oil from being drawn out.

By making lubrication a forethought instead of an afterthought, we have created a superior bearing solution.

LUBRILIFE COMPETITOR

The longevity of Lubrilife.

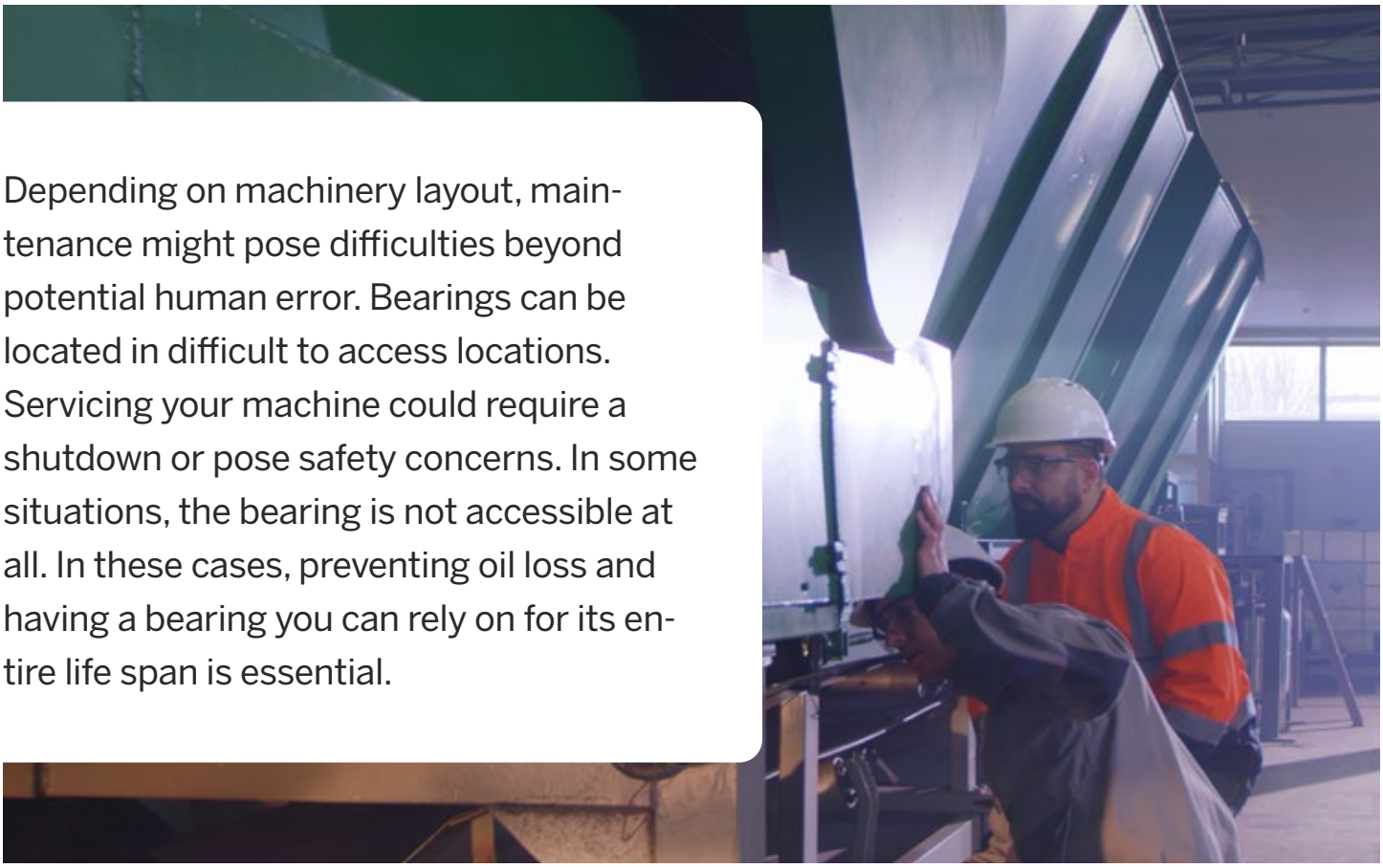
The superior fill and microstructure design of Lubrilife allows bearings to last the duration of their designed life when applied as a forethought. Lubrilife has incredible longevity and demonstrates the lowest amount of oil loss in comparison to its competitors.

Lubrilife can hold up to four times the amount of base oil that a similarly sized greased bearing does. The increased oil volume alone would significantly reduce the need to maintain a bearing.

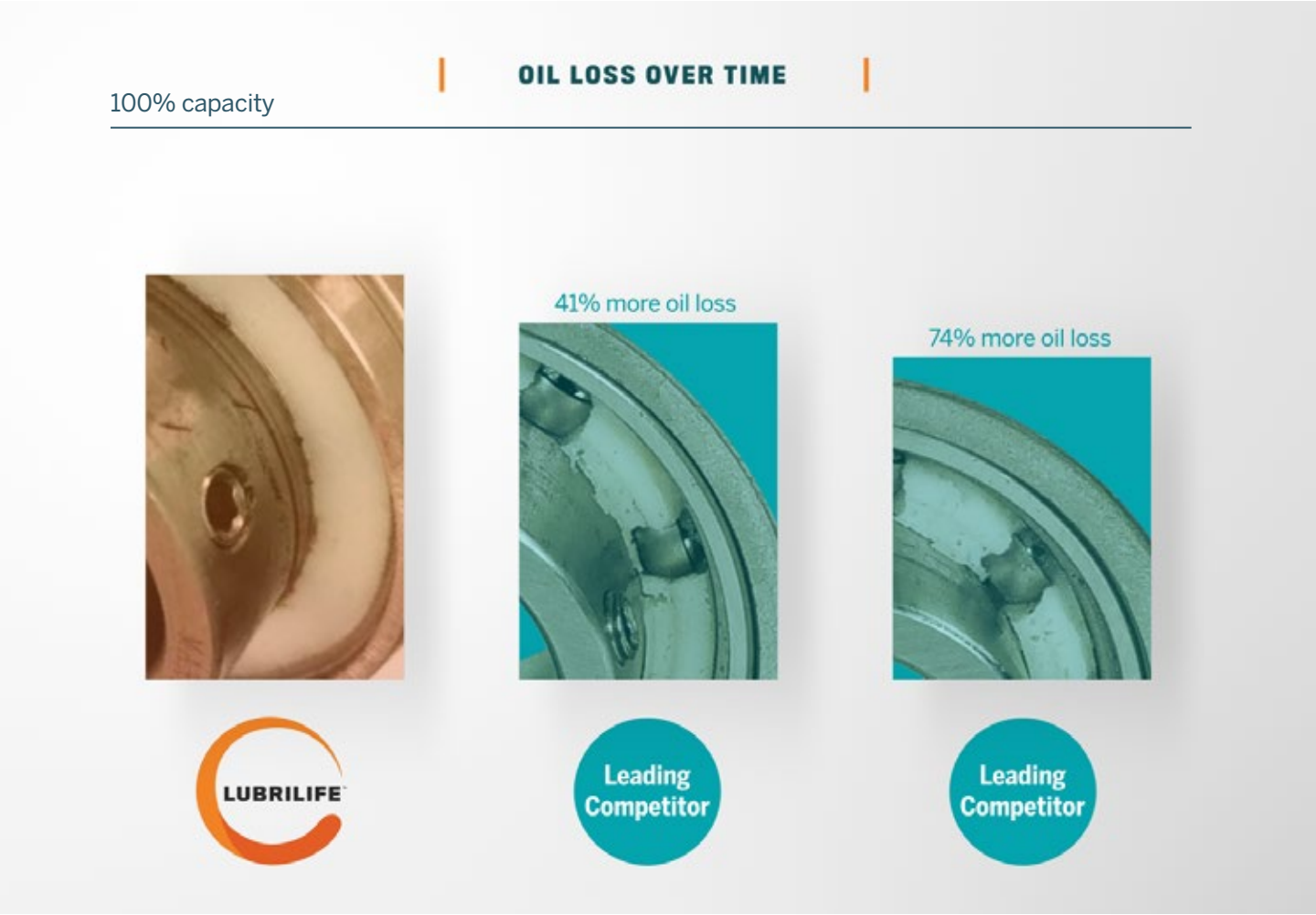
Over time a standard greased bearing's oil gets used up and breaks down, requiring many maintenance services with intricate procedures. Lubrilife's micropores are 1/10,000 of an inch in size, distributed throughout the entire polymer for an even distribution of lubrication.

To maintain a traditional greased bearing, a maintenance technician needs to locate the grease zerk and precisely follow a predetermined lubrication schedule. Grease applications will be required for the life of the bearing. Lubrication is too essential a process to be left up to guesswork and estimations. With expensive manufacturing equipment, we should be eliminating human error wherever possible. Lubrilife does just that. It removes human assessment and uses technological advances to release and reabsorb oil effectively.

Lubrilife utilizes two factory-installed seals as further protection for the bearing, which acts as insurance to contain the oil. This results in virtually no oil loss; the bearing is lubricated for life, eliminating a common source for premature failures and maintenance headaches.



Depending on machinery layout, maintenance might pose difficulties beyond potential human error. Bearings can be located in difficult to access locations. Servicing your machine could require a shutdown or pose safety concerns. In some situations, the bearing is not accessible at all. In these cases, preventing oil loss and having a bearing you can rely on for its entire life span is essential.



Graphic above: Lubrilife retains oil better than other leading competitors. This leads to longer life and superior performance.

The combination of an advanced microstructure and uniform fill proves to be the best compared to Lubrilife's competitors. In a test based on real-world applications, Lubrilife outperformed all of its opposition. The forethought of Lubrilife pays off. Other solid lubes release oil inconsistently. This can lead to a higher oil loss rate and a higher chance of contamination.

With Lubrilife's consistent distribution of its microstructure throughout the polymer, oil is released and reabsorbed more efficiently. Lubrication isn't interrupted, bearing components receive a high level of protection, and the solid lube and bearing show less wear. Over 200 hours, other solid lubes lost or used up almost double the amount of oil as Lubrilife. This could mean a longer life span for your bearings and an increased period of optimal performance for your machinery.

Particulars to consider if Lubrilife can benefit you.

Although there may be an upfront cost in switching to Lubrilife, the benefits quickly pay for themselves. Mitigating risk, expense, and downtime will increase your bottom line. Don't let an upfront expense cost your machinery its overall life span due to bearing complications.

VARIABLES	LUBRILIFE	COMPETITION
Polymer application	✓ During the manufacturing process	✗ After-market modification requiring removal of a factory seal and grease
Polymer fill	✓ Verifiable in-factory with visual inspection	✗ Unverifiable
Resistance to washdowns	✓ Polymer supports seals	✗ Polymer voids liability
Oil retention	✓ Aided by factory-installed seals	✗ Lone seal cannot contain oil
Contamination infiltration	✓ Limited by pair of seals & flingers	✗ Polymer voids/lone seal allows infiltration
Bearing design	✓ Zerk/grease groove delete	✗ Retrofit of greased bearing
Seals/flingers	✓ Applied post-polymer	✗ One set permanently removed

Performance

Dealing with frequent warranty claims or excessive maintenance? Only 10% of bearings reach their optimal life span, likely because close to 90% of bearings still rely on grease. Lubrilife eliminates the intricate, time-consuming maintenance required by greased bearings and increases overall life span significantly.

Consistency

Do you have idle periods or seasons? There would be no worry of grease breakdown when your machinery is not in use. Lubrilife's advanced technology results in excellent oil retention and continual uniform surface lubrication. That means an off-season will not hurt your bearings or decrease performance. Your bearings will be ready to go when you are.

Protection

With Lubrilife, you can avoid premature failures due to contamination infiltration. You can eliminate complications with bearings that don't require peripheral/additional protections or rely on maintenance estimations. Lubrilife acts as an all-in-one protection and lubrication method. Machinery can be washed as much or as little as your protocol requires. There is no need to worry about the integrity of the grease in your bearings.

Want to solve your lubrication issues?

Permanent lubrication is the only solution you should consider.

FORETHOUGHT

Lubrilife

*Seal removed to expose superior fill

AFTERTHOUGHT

Competitor

*Seal removed to expose air gaps

Make the shift to permanent lubrication.

Solid lubrication is most effective when included as a standard step in the manufacturing process, a forethought. Retrofitting a greased bearing with solid lubrication - an afterthought - does not mitigate all the risks or eliminate the costs and frustration associated with substandard lubrication. When treated as a manufacturing step, permanent lubrication can eliminate premature bearing failure originating from lubrication issues, allowing a company to get the most out of its expensive machinery.

With its complete polymer fill, simple and streamlined design, two protective factory-installed seals, and even more - Lubrilife permanent lubrication offers many features that greatly improve bearing performance. It saves time and money.

Considering a shift to solid lube and concerned about how to best include solid lubrication into your systems? We can help.

Contact the Baart engineering team to learn more about Lubrilife.

CONTACT US ABOUT LUBRILIFE