

Whitepaper

How your equipment stays well lubricated with less people

Extend your lubrication intervals and avoid unplanned downtime



Summary

In normal times most companies have already limited resources in the maintenance department and have difficulties in keeping up with the postulated lubrication frequencies. With fatal consequences as premature wear and tear, shorter life-time of machine components, higher energy consumption and in worst case unforeseen downtime and thus production stops. All this leads to reactive maintenance, which in turn leads to even less preventive maintenance. Do you recognize this downward spiral?

In these complex times where we are dealing with the Covid-19 virus, you probably might have even less resources to do maintenance because some of your maintenance team may still need to stay at home. On the other hand, in some (lucky) cases, factories are producing more than normally, i.e. food processing plants and pharmaceutical plants.

The challenge here is how to keep your equipment working properly avoiding unplanned downtime. There are 5 main causes of manufacturing downtime: ambiguous working instructions, the lack of crisis strategies, human error, lack of gathering downtime feedback and improper manufacturing equipment maintenance. When it comes to equipment-based productivity loss in the manufacturing industry, its main causes are listed as improper equipment maintenance – which includes incorrect lubrication.

The following solutions can help you to keep your equipment lubricated with less people, to extend your lubrication intervals and to avoid unplanned downtime:

Choose the best lubricant for at least your critical lubrication points

Every piece of machinery has one or more critical lubrication points. These are submitted to extreme conditions and if they are not lubricated on time, they will cause a breakdown. Saving on the cost of lubricants can be counterproductive. Interflon lubricants are designed to deal with extreme conditions and perform in process industries where 24/7 operation is common. Interflon's unique MicPol® lubrication technology ensures lower friction, longer lubrication intervals, emergency running properties and cleaner machines.

Replace some manual lubrication by simple automatic Single Point Lubricators

Manual lubrication is time consuming, expensive and in some cases dangerous. To lubricate you sometimes have to stop the machine, which is downtime. Next to that, your lubricators are human and especially in stress situations, it might occur that they forget lubrication points. Especially at hard to reach points, where they face an unsafe work situation. Due to insufficient, but also too much lubrication, the life of your machine is shorter than foreseen. And you will always have the risk of unplanned downtime. Consider installing Interflon Single Point Lubricators for those mentioned lubrication points.



Interflon Single Point Lubricators replace expensive manual lubrication and are reliable

Spend a little bit more time in cleaning the parts to be lubricated

When there are few resources and if there is little time to lubricate, cleaning is often skipped. In applications exposed to the environment, buildup of grime or corrosion may cause further issues. Either the lubricant will not penetrate in the spaces where they need to do their job, i.e. pins and bushes of chains, or the lubricant will create an abrasive paste and have a sandpaper effect. The opposite of lubrication. Interflon F-Active cleaners are European Eco label certified, ecological and effective. Using them saves you time compared to cleaners which need to be applied several times. Moreover Interflon F-Active cleaners like Interflon Eco Degreaser and Interflon Fin Clean All2 contribute to the fight against the Corona virus.

Use the right tools to lubricate

Applying the right lubricant in the right amount at the right moment is key for a correct lubrication. But also using the right tools to apply the lubricant in the most effective and efficient way is key, also to save time. How much time does it cost you to change a cartridge in a grease gun? Or fill your grease gun from a grease pot, tin, or barrel? How much grease does really go into the bearing when you attach the grease gun to the grease nipple? How much time do you spend on greasing guides, open gears etc. with a brush? Are you sure you are applying non contaminated grease? The use of a certain tool is important. It makes life easier for the people on the work floor and will save time per lubrication point. Consider a Interflon G-Coupler, a Interflon Lube Shuttle or a Interflon Tube Dispenser.



A Interflon Grease Gun allows you to get the grease right into the area where it is required

MicPol® technology for longer lubrication intervals

Interflon's unique MicPol® lubrication technology ensures lower friction, longer lubrication intervals, emergency running properties and cleaner machines. They can be applied efficiently by hand through our very convenient lubrication tools or automatically through Interflon Single Point Lubricators. Our ecological and F-Active enzymatic cleaning solutions make sure that the lubricant will reach the surface and avoid contamination.

Problem description

In these complex times where we are dealing with the Covid-19 virus, we probably might have even less resources to do maintenance because a part of your maintenance team might still need to stay at home. On the other hand, in some (lucky) cases, factories are producing more than normally, i.e. food processing plants and pharmaceutical plants.

The challenge here is how to keep your equipment working properly avoiding unplanned downtime. There are 5 main causes of manufacturing downtime:

1. Ambiguous Working Instructions

If your manufacturing facility does not follow strict work instructions, chances are that the downtime you are experiencing and that you do not know what to link it with has something to do with that. Working instructions that are ambiguous or worse, drafted by personnel not belonging to the production departments will end up causing a downtime that can be hard to identify, if you didn't see this as a problem to begin with. Therefore, if you are going over the causes of manufacturing downtime, make sure you are checking that all working instructions and procedures are clear, comprehensive, and up-to-date.

2. The Lack of Crisis Strategies

In the event of a crisis or a hazardous situation, having measures in place for dealing with it and for communicating with your employees will significantly reduce the duration of a downtime. Having a crisis communication strategy in place and using a modern solution such as a mass notification system will help your manufacturing facility better manage the outcomes of any crisis or emergency situation. And even if you cannot avoid a downtime, you can still significantly reduce it by being prepared for any situation.

3. Human Error

As aforementioned, human error is one of the most common causes of downtime in the manufacturing industry. One of the most famous cases of human error in history is that of the Mars Climate Orbiter, with a cost of \$327.6 million. Failure to properly convert between units of measures lead to the breakdown of the mission and the impossibility of recovering any of the financial losses. And although human errors are found in all industry, when it comes to manufacturing, their impact on downtime can be severe, especially when equipment is involved or when they happen during a major project.

Make sure that all your employees are constantly trained in regard to all aspects of your manufacturing facility, and that those training programs are up-to-date with new technological development or changes in the legislation.

4. Lack of Gathering Downtime Feedback

Working on reducing the downtime experienced by your manufacturing facility should be a continuous process, one that can't be successful with gathering and analyzing feedback upon which to make the required changes. If you are not collecting feedback from all your downtime experiences through tools like an emergency notification system, you might soon end up going through the same situation yet perhaps with even worse outcomes. Make sure that you always have an in-depth database with technical feedback but also with feedback from your employees.

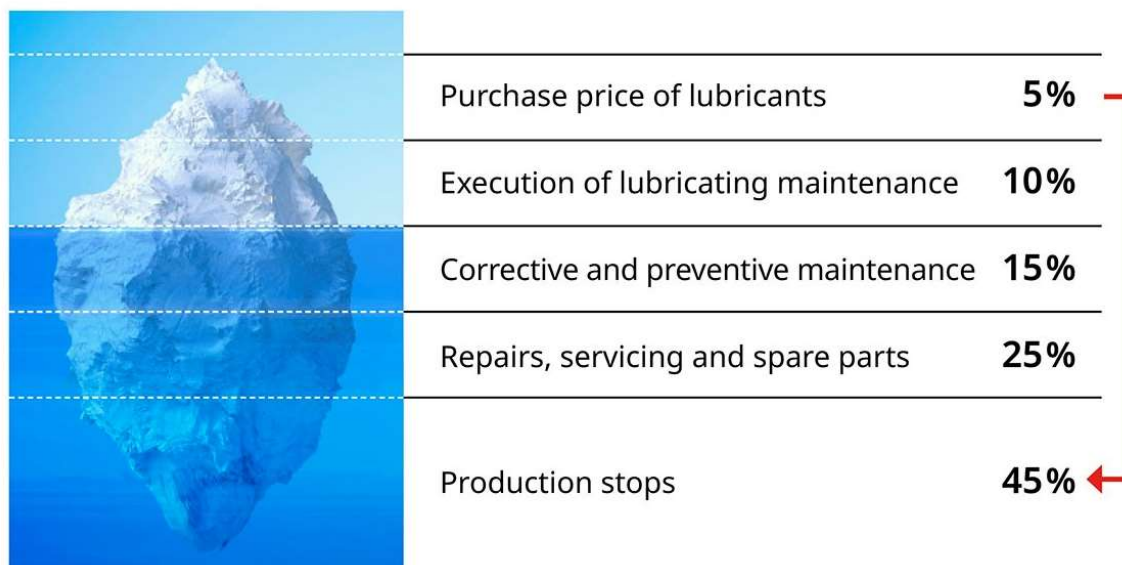
5. Improper Manufacturing Equipment Maintenance

When it comes to equipment-based productivity loss in the manufacturing industry, its main causes are listed as improper equipment maintenance – in some cases even the lack of maintenance altogether – and human error. If your company does not have a comprehensive plan in use for the maintenance of all equipment, you will experience downtime on a large scale than competitors who implemented a proper manufacturing equipment maintenance.

Proper maintenance also includes using the right lubricant on the right moment at the right quantities. In that context, it is interesting to look at the next image that reflects the composition of total maintenance related costs at a production plant:

Iceberg theory

Maintenance costs in a production department



Production stops represents 45% of the total costs

The price of a lubricant is just 5% of the total maintenance cost but the quality and the correct application of the lubricant has a huge effect on the other cost components. More than 60% of the maintenance costs are repairs, spare parts and last but not least unforeseen and unplanned production stops. The latter represents 45% of the total costs! Some industries report that one hour of unplanned downtime cost them more than USD 30.000!

\$30,000 per hour

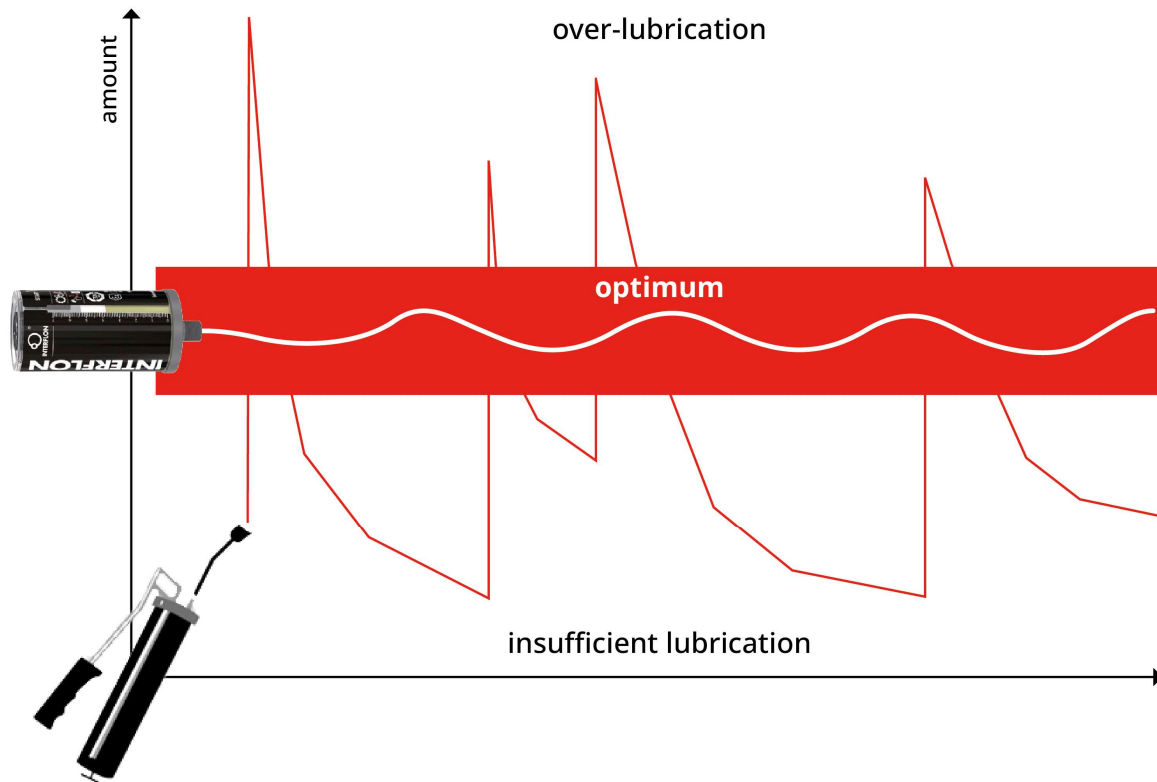
Unplanned **downtime** can **cost** a **food processing facility** an astounding \$30,000 per hour, according to a 2017 report from **industry** research firm Enterprise Strategy Group. 20 apr. 2020

Limited resources

In this Corona crisis you might have limited resources, which probably lead that there will not enough time to lubricate all points on time according to the lubrication plan. A part of your maintenance engineers might still need to stay at home, or you are producing more than normally due to an increased demand. Many plants need to lubricate with less people. Reducing maintenance costs has always been important, but in these challenging times even more.

Manual lubrication

Manual lubrication is time consuming, expensive and in some cases dangerous. Next to that, your lubricators are human and especially in stress situations, it might occur that they forget lubrication points. Especially at hard to reach points, where they face an unsafe work situation. Due to insufficient, but also too much lubrication, the life of your machine is shorter than foreseen. And you will always have the risk of unplanned downtime.



Interflon Single Point Lubricators for an optimum lubrication

Moreover, there is a lot of paperwork to complete the lubrication tasks and that does not help to free your lubricators to execute their lubrication tasks.

No time for cleaning

When there are few resources and if there is little time to lubricate, cleaning is often skipped. In applications exposed to the environment, buildup of grime or corrosion may cause further issues. Either the lubricant will not penetrate in the spaces where they need to do their job, i.e. pins and bushes of chains, or the lubricant will create an abrasive paste and have a sandpaper effect. The opposite of lubrication. Compare it with painting the walls of your house. Before you paint you clean, otherwise the paint will not attach to the surface. The same applies to lubrication. If you lubricate a contaminated surface, the lubrication film will not attach and be gone in short time.

The most effective cleaners are often not the safest to use. Not for your staff, neither for your equipment and the environment. They do clean the surface to be lubricated, but at a high price. And let us be honest, who likes to clean with a product you are afraid of or you get dizzy from? Your staff therefore have to wear PPE to protect themselves, but this costs time they don't always have. On the other hand, most safe and pleasant smelling cleaners are more than often not that effective and need to be applied several times, which is time and product consuming.

Improper application of lubricants

Applying the right lubricant in the right amount at the right moment is key for a correct lubrication. But also using the right tools to apply the lubricant in the most effective and efficient way is key, also to save time. How much time does it cost you to change a cartridge in a grease gun? Or fill your grease gun from a grease pot, tin or barrel? How much grease does really go into the bearing when you attach the grease gun to the grease nipple? How much time do you spend on greasing guides, open gears etc. with a brush? Are you sure you are applying non contaminated grease?

Solutions

Choose the best lubricant for at least your critical lubrication points

Every piece of machinery has one or more critical lubrication points. These are submitted to extreme conditions and if they are not lubricated correctly, they will cause a breakdown. Saving on the purchase price of lubricants for these critical points can be very contra productive. That would be 'penny wise, pound foolish'.

Interflon lubricants are designed to deal with extreme conditions and perform in process industries where 24/7 is common. Our unique MicPol® technology creates a strong, long-lasting solid lubrication film that resists higher pressure than a conventional lubrication film, repels water and contamination particles and provides emergency running properties. This means that the MicPol® lubrication film will be already present at cold start-ups or shock-loads but will even remain when the oil or grease has been pushed or washed away avoiding that typical breakdown due to lack of lubricant.

In these times of limited resources, where it is not unimaginable there is not enough time to lubricate all points on time according to the lubrication plan, these emergency running properties of MicPol® even allows you to arrive too late for lubricating since the MicPol® film will remain for a long time, even when there is not enough oil or grease left. Apart from that, the solid MicPol® lubrication film is composed of particles that provide the lowest friction possible between moving parts, reducing wear and tear and in this way increasing component lifetime, decreasing the amount of machine interventions. This means uptime!

Which will help you also in case you have less resources to execute lubrication tasks, is the fact our MicPol® technology allows you to considerably extend lubrication intervals, since the MicPol® film 'wears' out less quickly than a conventional lubrication film and therefore you don't need to relubricate that often. In some cases, we are talking of extending with a factor 8 to 10. That not only saves on lubricant consumption, but also on lubrication time.

Extended lubrication intervals for Belgian poultry market leader

The poultry slaughterhouse Van-O-Bel, one of the market leaders in Belgium, has been using Interflon products satisfactorily for years. Thanks to Interflon they have extended the lubrication intervals. They have one type of lubricating oil and one type of lubricating grease which hardly drips off and is therefore a clean lubricant. It ensures efficient management of the machinery and guarantees stability and continuity.



Efficient management of the machinery

Replace some manual lubrication by simple automatic Single Point Lubricators

You might need to lubricate with less people due to the Corona crisis. As you know manual lubrication is time consuming, expensive, not reliable and sometimes dangerous. It can lead to unplanned downtime.

When you want to save time, to achieve greater work safety thanks to fewer manual lubrication tasks, to avoid forgotten lubrication points, to lengthen the life of your machines and less unplanned downtime, Interflon Single Point Lubricators are the right solution for you. They replace expensive manual lubrication and are reliable. This not only saves time, but also prevents insufficient lubrication, under or over lubrication and even using a wrong lubricant. This can reduce costs by up to 30%.

A wide range of Interflon Single Point Lubricators and accessories offers a solution for most lubrication points. They can be installed very easy and in all possible positions, even under water. They have a compact format, are to be used in extensive operating temperature options (-20°C to +55°C) and are adjustable from 1 to 12 months. You avoid pollution around the lubrication point.



Interflon Single Point Lubricators for every application

Consider these for those lubrication points that need frequent lubrication, i.e. high temperature, extreme pressure, water exposed applications, are hard to reach (due to height, safety guards, dangerous situations) or you need to stop your machines to lubricate.

All lubrication points covered and lubricated in the right amount

A leading concrete tile and brick manufacturer had to deal with guides which were hard to reach and often forgotten. The guides moved very slow because of friction causing waste of tiles. More than 200 Interflon Single Point Lubricators were installed in the factory. All lubrication points are covered and lubricated with the right product in the right amount, while the machine is running. This resulted in properly working guides with no friction and no waste of tiles. Moreover the safety was improved.



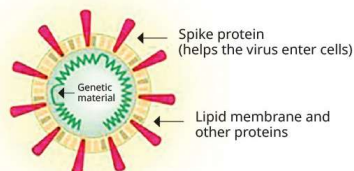
Interflon Single Point Lubricators for an optimum lubrication

Spend a little bit more time in cleaning the parts to be lubricated

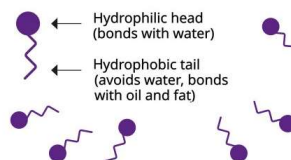
If you have few resources it is still important to spend time in cleaning the parts to be lubricated. This will even save you time and costs. Interflon F-Active cleaners are ecological and effective due to the enzymatic biological action. They are label free, have the European Eco label, are certified to use in food processing and pharmaceutical plants and can be used without having to wear PPE. And these F-Active Interflon cleaners are also contributing to the fight against the Corona virus as well. The enzymes present in for example Interflon Eco Degreaser and Interflon Fin Clean All² are able, based on physical and chemical knowledge, to cut open the oily envelope of the Coronavirus. This destroys the viral envelope, making the virus unable to infect a cell and therefor deactivating the virus and increase significantly the chance the Corona virus will be completely removed from the surface you are cleaning.

Covid-19

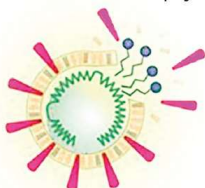
The coronavirus has a membrane of oily lipid molecules, which is studded with proteins that help the virus infected cells.



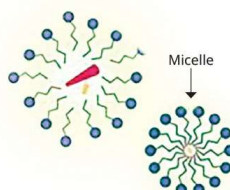
Soap molecules have a hybrid structure, with a head that bonds to water and a tail that avoids it.



Soap destroys the virus when the water-shunning tails of the soap molecules wedge themselves into the lipid membrane and pry it apart.



Soap traps dirt and fragments of the destroyed virus in tiny bubbles called micelles, which wash away in water.



F-Active Interflon cleaners are contributing to the fight against the Corona virus



Watch the video: <https://vimeo.com/408352668>

However, it is a good idea using an anti-viral disinfectant after cleaning to completely ensure disinfection of the surface, if needed. After cleaning the surfaces, you will not only have cleaner working environments, less risk of contamination dripping on your machines and even on produced products but get more out of your lubrication. You will need less lubricant, you will get longer lubrication interval, less wear, etc.

Use the right tools to lubricate

The choice of lubricant is very important, but also the tools that been used are important. A few sand grains in a bearing or slideway can cause serious damage after all. Clean working with lubricants is a must. However, the need of clean working is not always recognized. Moreover, people often do not know how important clean working is. Some examples: open jar's with grease where a brush sticks out on a tool trolley, dirty grease guns, open oil cans, dirty grease nipples, lubrication in a dusty area.

Using the right tools for lubrication makes life easier for the people on the work floor and will save time, also when lubricating the different points. Consider the Interflon G-Coupler, Interflon Lube Shuttle and Interflon Tube Dispenser to simplify the process.

Using the Interflon G-Coupler all grease will enter the lubrication point. The Coupler is self-aligning, so it sits straight on the grease nipple. Even under high pressure up to 10.000 psi. After removing the Coupler cleaning is hardly needed. The nipple stays clean for the next lubrication interval. This tool saves you time and lubricants. Moreover it makes life easier.

Well lubricated grease point thanks to Interflon G-Coupler

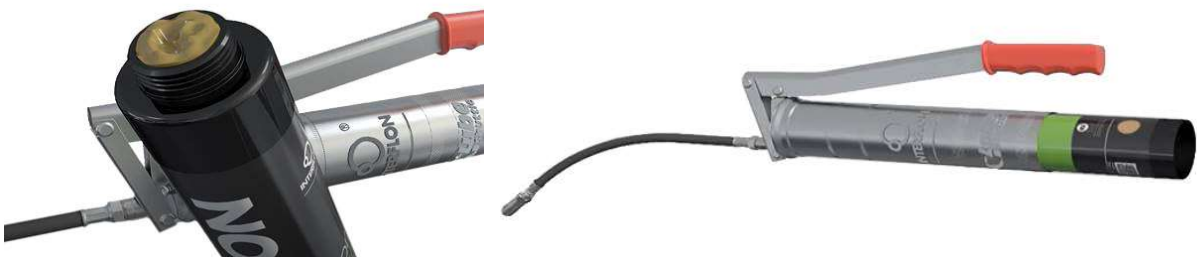
A woodworking plant did have dirty grease points, which is a common situation for plants. Dirt entered the lubrication point and grease was spilled. The Interflon G-Coupler, a handy and durable tool, keeps the grease nipple clean and ensures that the grease enters the nipple thanks to aligning. Well lubricated grease points, clean and easy working and time savings were the result.



The Interflon G-Coupler keeps the grease nipple clean and ensures that the grease enters the nipple

Conventional grease guns have many cons and are not easy to fill for non-experienced people. Therefore there are many empty grease guns in factories. Other disadvantages are air pockets in the cartridge, no visible control on the type of grease applied, the possibility of using the wrong lubricant causing failure in time without knowing, grease next to the grease nipples instead of in the lubrication point and open grease tubs with dirt inside. Next to that there is no visible control of the amount left in the cartridge, which might lead to situations that your employee is working on or under a machine when the cartridge is empty, which needs him to stop his work and get a new cartridge. All very time consuming.

By using Interflon Lube Shuttle Grease Guns all cons mentioned are eliminated. This saves a lot of time and it makes life easier for the users. Interflon Lube Shuttle Grease Guns are for your convenience, so that you can change a grease cartridge within one minute and keep your hands clean.



The Interflon Lube Shuttle Grease Gun saves time

Another everyday practice is the pot with lubricant standing open in the workshop. Dirt and dust will pollute the lubricant and the lubrication properties are partly lost because of this. The Interflon Tube Dispenser is a very good tool to apply clean lubricant to every surface in the required quantity.

Clean lubrication can be easy using the right tools. It saves time and lubricants and makes life easier.



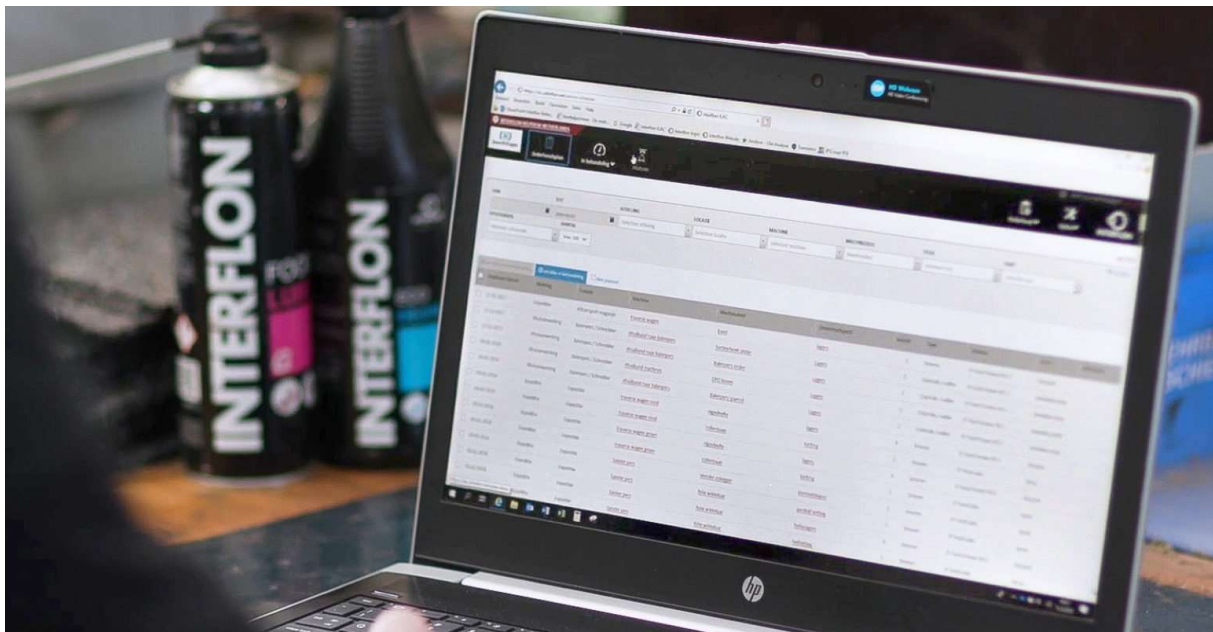
The Interflon Tube Dispenser for applying clean lubricant in the required quantity

MicPol® lubrication technology

Interflon's unique MicPol® lubrication technology ensures lower friction, longer lubrication intervals, emergency running properties and cleaner machines. They can be applied efficiently by hand through our very convenient lubrication tools or automatically through Interflon Single Point Lubricators. Our ecological and F-Active enzymatic cleaning solutions make sure that the lubricant will reach the surface and avoid contamination.

Operational Excellence

When you need to lubricate with less people, you need to improve your maintenance process. Interflon Lubrication And Control (ILAC) has been developed by our lubrication consultants together with our customers. This maintenance software enables you to perform, improve and secure (lubricate) technical maintenance tasks easily and efficiently. With ILAC pro you can even work together via mobile devices, so that paper can be eliminated. Your lubrication plan is embedded in a handy and user-friendly software environment. ILAC maintenance software fits perfectly with a process-oriented organization. Whether it is Lean Manufacturing, TPM or Six Sigma. ILAC is a powerful tool for implementing your improvement process.



ILAC maintenance software for performing lubrication tasks efficiently

Your customized lubrication plan

With ILAC you get access to your customized lubrication plan, completely filled for you. You can start directly. Overall Equipment Efficiency is made possible by cost-saving lubricants combined with ILAC as a powerful tool for managing your operational maintenance and lubrication activities. You can use ILAC for:

- Documenting maintenance work
- Automating your lubricating and maintenance activities
- Effective planning and management
- Rationalizing the number of lubricants
- Determining the most suitable lubricant per lubrication point
- Registration of deviations from machines
- And much more!

You will have control over your machinery with less people. Instead of reactive maintenance, you are concerned with preventive maintenance and ultimately you will increasingly be involved in making the critical control points at machine level manageable.

To implement ILAC we help you to map the entire machine park with all maintenance points in close cooperation with a technician from your company. In this way an efficient approach to lubrication and first line maintenance is realized.

About Interflon

Interflon manufactures high performance lubricants with MicPol®, cleaners and hardware. MicPol®, our unique lubricant technology, offers the lowest possible friction, repels water and particles and has excellent penetrating properties. We offer you lubricants with exceptionally good performance for industrial and food processing equipment maintenance purposes. Our lubricants last up to ten times longer than regular lubricants and are known to extend the life of the chain and bearings many times over.

With expertise in a wide range of industries in over 50 countries and 40 years of experience as a lubrication partner, Interflon offers you integrated solutions. Our Technical Advisors, application engineers and lubrication consultants utilise over 2,400 of the best lubrication methods and help you move forward in a constantly evolving world, complemented by training programmes, consultancy, software and hardware equipment. Interflon helps companies to reduce their maintenance and energy costs, at the same time reducing downtime. We employ 400 skilled Technical Advisors worldwide to assist our customers on-site in optimising their processes and implementing the selected Interflon lubricants converting them into real cost saving solutions. Combined with our MicPol® technology, our solutions enable your business to achieve your goals and the highest possible standards of safety, efficiency and emissions.

Continuous lubrication ensures low costs and high reliability. Interflon Single Point Lubricators are used worldwide in every industry. They are the best and most economical solution for the continuous supply of grease or oil for periods of up to one year. Contact us if you would like to have more information. We will be pleased to advise you and put you in touch with one of our Technical Advisors.

www.interflon.com

