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Good hygiene for a clean and safe milking process



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Consumables and wearparts



We care for daily needs that support a smooth and profitable operation on your dairy farm



Service and advice

It is about healthy animals, smooth operating machines and a tank full of quality milk. To achieve this it is important to care and pay attention on different levels. Through daily routines and timely maintenance in combination with the right products, you can contribute to this. However, you don't have to do it all by yourself. The service technicians from Lely are specialized in automation and there to support you in maintaining your machine. For topics related to your business goals or the management software system you can go to the Farm Management advisers. They are the experts in the management software system T4C and InHerd. And can convert data to goals tailored to your needs.



The Farm Management Support advisors from Lely will guide you before, during and after the installation of your robot. They are for you a sparring partner for all cow, labor and management related matters. Farming is often in their blood and they have knowledge of local conditions. Through them you have access to the knowledge and experience of Farm Management advisors from all over the world. And they can help you get more familiar with the management software system T4C that Lely offers to improve and monitor the condition of your herd and milk automatically.

Technical Service Support

Lely also supports you in the maintenance of the Lely robots. Our service technicians guarantee 24/7 personal assistance, fast reaction times and a professional parts service.

Through specialised training, experience in the field and often also an agricultural background, they speak the sector's language. Every service technician works in their own region and knows the background, details of the farm and the equipment in use. This allows them to act quickly and makes them a reliable partner, giving you peace of mind and security. The Lely service technicians are always at your service.

Products for the care of your milk, cows and robot

The key principle behind the Lely concept is free cow traffic. Your dairy cows will find their own way to the milking robot. This is not only the most natural option, it also ensures a considerable better yield. This is precisely why for the optimal functioning of the milking robot, we look beyond just the robot itself. In addition, we also provide solutions for hoof

and udder health and products which directly contribute to healthier cows. With as a result a tank full of quality milk. That is our goal.

Original wearparts

As a dairy farmer you are rightly expecting a lot from your Lely machines. But in order to have everything functioning optimally and without issues, we need to maintain the machines properly with the right cleaning products and the right wear parts. Because then your machines function as expected.





LELY CONSUMABLES

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Optimal care for optimum results

Optimal care accomplishes optimal results. Caring for your machines, your cows and your milk. Lely gladly supports you in this with a comprehensive portfolio of consumable products and original wear parts, dedicated to these three care responsibilities. This is why you will find specific products for Machine Care, Cow Care and Milk Care. Because only with the right tools combined with the right maintenance can you expect optimal results.





Milk care

All of your efforts are ultimately geared towards getting a tank full of quality milk. You strive to bring premium cows in perfect condition into the milking robot for a desired result. It is thus of utmost importance that the milk leaves the udder cleanly, with the least amount of germs before entering the milk tank. The Milk care products from Lely assist you in this. Lely has developed consumable products to keep the udder, robot and

milking tank at its cleanest. Cleaning products that are 100% safe for your cows and machines and extremely effective in limiting bacterial growth.

This you can rely on.

Cow care

Your dairy cows will find their own way to the milking robot based on the free cow traffic concept. This is the very reason as to why Lely places attention on cow health. We understand the

importance of healthy and mobile animals and their contribution to solid returns for your farm. This is why we develop comprehensive solutions such as disinfectant and caring udder sprays. As well as products for a good and hygienic cubicle. In this way, you not only accomplish improved udder health, but also foster a good lying behaviour, which translates into higher milk yields. This way, milk yield, milk quality and cow health go hand in hand.

Machine care

As a dairy farmer you rightly expect a lot from your Lely machines. To ensure that everything is functioning optimally and without issues, machines need proper maintenance with the correct cleaning products and original wear parts. This enables your machines to function as expected. The Lely Machine Care products support the longevity and the optimal functioning of your Lely machines.





A full tank of quality milk

Milk that leaves the udder cleanly also needs to enter the tank cleanly. In order for this to happen there needs to be hygienic cleaning throughout every link of the process. Lely helps you with its fully automated cleaning programmes and with consumables specially developed for the Lely milking robot. They give optimal cleaning results and have been designed for safe use with the robot. Much like yourself, Lely aims for 100% cleanliness.

Throughout the chain

The Lely Astronaut uses heat cleaning to remove organic and inorganic pollutants. At temperatures that start at 95°C and cool down to 77°C it is essential that the cleaning products do not contain chlorine or other corrosive ingredients. This would cause corrosion and damage to the stainless steel parts of your robot. This is exactly the reason as to why the Lely cleaning products are entirely chlorine-free and safe. The alkaline and acidic cleaning products are applied in fixed intervals in order to achieve an optimal hygienic result. This allows you to keep the somatic cell count in check.

Lely also offers products for cleaning and disinfecting the brushes in the robot, on the front side of the milking process and for cleaning the milk tank on the back side of the process. Together we want to maintain control of the process from udder to milking tank to safeguard the milk quality. Additionally, we offer you an integrated solution; machines with intelligent cleaning software and cleaning products that are perfectly attuned to it.

Good hygiene is essential for a clean and safe milking process.



LELY CONSUMABLES



Clean for quality

Robot cleaning

The Lely milking robot cleans itself three times a day in a fully automated manner. This needs to happen quickly in order to have as much time as possible available for the milking robot, but simultaneously also very thorough. This is why we opted for heat cleansing where the cleaning products are entered into the robot in a flow at temperatures starting at >95°C. Twice a day the Lely robot is cleaned with an alkaline solution and once a day with an acidic cleaning product. All of the organic waste is removed using the alkaline cleanser and the inorganic waste with the acidic cleanser. This very thorough cleaning, alongside replacing the filters three times a day is an extremely good

start for a tank full of clean milk. The cleaning products used by the Lely Astronaut are delivered in containers with clear colour coding in order to prevent mistakes. Precisely because the cleaners are heated in the inner part of the milking robot, it is essential that they not only clean very thorough, but are also 100% safe for the robot. For instance, they need to be 100% chlorine free, so the vulnerable and stainless steel parts of the robot are not harmed. The Lely cleaners and robots form a solid combination that can guarantee the hygiene and lifespan of the robot. That is why Lely expressly advises to solely use the Lely cleaners in the robot.

Brush cleaning

Lely ensures that every udder milked by the robot is thoroughly brushed. This makes for a clean udder and prevents cross-contamination. It also ensures that pollution from the barn does not end up in the milk tank. This of course also means that the brush itself needs to be cleaned each time to ensure a perfect result. For this reason, Lely has developed a brush cleaner that cleans quickly and thoroughly, is completely safe for the milking robot and does not irritate the udder. This brush cleaner is not only good for the dairy cow, but also for the robot and the milk. The original Lely brush cleaner guarantees optimal results.

Tank cleaning

Many causes of milk contamination can be attributed to issues that arise in the milk tank. Milk tanks are cleaned less often, generally speaking. As they can only be cleaned when they are empty. Also because of the size it can't be cleaned under the same temperature as the Astronaut. Often, temperatures between 45 and 70°C are reached, which is clearly not enough to kill bacteria. To get good and quick cleaning results, you need to opt for a different type of cleaning product. In this area, you need acid cleaning as well as alkaline cleaning to achieve an optimal result. This can be done with or without chlorine. From a sustainability perspective, the latter is preferred, but a lot of dairy farmers make their own choices by weighing sustainability and cost. Whatever you choose: Lely offers all types of milk tank cleaning products. They are tested for their functionality and safety and ensure that the final link in your farm's process is truly clean.



Ensure your milk quality with Milk Care products;



Lely Astri-Lin

Astri-Lin is Lely's own alkaline detergent for the milking robot. It safely and effectively removes all organic pollution that can form a threat in safeguarding the hygiene.

Astri-Lin does not foam and has an excellent cleaning effect on fat and protein residues, that otherwise could be used as a breeding ground for bacteria.

The cleaning product contains lime binders that prevents lime drip during cleaning.



Lely Astri-Cid

Astri-Cid is Lely's own acid detergentfor the internal cleaning of the milking robot. It removes all inorganic contamination that could pose a threat to hygiene. Lime, milkstone, iron and minerals are thoroughly removed. But also for the operation of the meters, the valves and the MQC-block. Astri-Cid also contains corrosion inhibitors for extra protection of the robot parts. That how, Astri-Cid contributes to a better hygiene when being used under high temperatures.



Lely Astri-L

Disinfecting of the brushes must be very thorough. At the same time, the product that disinfects, can't irritate or negativly effect the udder. Also non of the residues should remain on the brushes. These are very specific demands for the cleaning product. Lely's Astri-L brush cleaning products ensures a quick disinfection and is 100% safe for the udder.



Healthy cows for a healthy business

Healthy cows are essential for farm business management. Whilst your cows' immunity is an important part of herd health, fertility, hoof and udder health are also crucial components. Premature culling is having a huge effect on the overall productivity of dairy cows. Two main contributing factors to premature culling are udder health and fertility problems, with udder health being the most serious.

Automated solutions

Fortunately, you do not have to handle herd health on your own.

Lely offers automated solutions for both the udders and the hooves. Care that is focused on prevention of health problems.

With the robot the udders and hooves get sprayed after each milking for caring and disinfecting effects. These products have been developed specifically for this application and work optimally in combination with the Astronaut.





Udder care

Udder health plays a huge role on every farm worldwide. Diseases such as mastitis can have serious financial consequences for you as a dairy farmer and can make your job more stressful. The impact of mastitis has its effects through lower milk production, veterinary costs and the possibility of a reduced milk price if you exceed your SCC limits. By using the correct udder care products, ones that are perfectly attuned to your set-up and the robot, we can guarantee the spray pattern of the care products and largely prevent bacteria. Udder health, however, depends on many different factors. Your Farm Management Support Advisor will examine all aspects of your farm with you, including your herd's immunity, hygiene, climate, feed and milking patterns. Together, we will develop a plan of action.

Good hygiene

Lely's udder care products are aimed at prevention and stops cross-contamination so that we stay in charge of mastitis with you. The Lely product offering both in combination or as stand alone, contribute to good udder health and thus a healthy milk yield.

Caring vs. disinfecting

Lely offers a wide range of udder care products. Part of our udder care range uses a lactic acid base, and the other part is iodine based. The purpose of the products are, on the one hand, on the udder to disinfect and on the other hand for caring effects. Some of these products focus more on disinfecting and others more on caring. Where else products focus more on caring. The right product for your herd will vary per situation. Given the intensive use of resources, the type of product choice is very important. We are happy to advise you with your choice.

Cubicle hygiene

Aside from cow-contact infections, bacteria (such as Streptococcus agalactiae, E.coli, S.uberis, S.aureus, S.dysgalactiae and Klebsiella) can also be transferred through the environment and by the cubicle in particular. This is why good cubicle hygiene is essential. Lely also has specially developed products for this: Lely Essentials Comfort and Comfort Care. These cubicle products foster improved udder health because the cubicle remains dry, which strongly limits cross-contamination. Lely has added essential oils to the "Care" variant that makes the environment much more hostile for bacteria. Whilst it's not possible to be entirely bacteria-free, Lely will help you keep them at bay. In addition to the improved hygiene, the Lely Essentials Comfort products ensure a dry cubicle. This improves cow comfort, keeping your dairy cows lying down longer and, as you know, every extra hour means one extra litre in the milk tank.





Essential products for cow health with Cow Care;

Lely Astri-Din

Lely Astri-Din is specially developed for use in the Astronaut. The disinfectant kills both cow and environment-bound bacteria. Astri-Din is generally recommended within dairy farms where the udder health is under control. The product has a disinfectant operation; it kills bacteria and fungi. But in addition, Lely Astri-Din also has a mild care operation. It fights against skin aging and stimulates the accumulation of new cells to strengthen the skin of the udder. This makes it very suitable for routine use.



Lely Meteor Care-spray

Attention to hoof health pays off. Not only because mobile cows contribute to a higher milk yield, but also because hoof problems are still one out of the three reasons for culling dairy cattle. With the Lely Meteor approach, you reduce hoof disease in a safe and sustainable way. The Astronaut gives the option to automatically spray the hooves with every milking. The Meteor Care spray is aimed on prevention and is a disinfectant and nourishing spray.



Lely Meteor balm

Lely offers a complete line with its Meteor products to ensure the so-called 'zero tolerance policy'. Every animal with a problem is treated immediately until the hoof health has been improved. Lely Meteor Balm is an important asset within that approach. Lely Meteor Balm is used for the Mortellaro condition. The ointment loosens the abnormal skin through which it creates space for the underlying healthy skin to rise. With the Meteor Balm you support natural recovery.

Cows with healthy hoovess are more productive and require less attention. Precisely because Lely chooses the most natural way of milking and the cows go to the robot and feed fence at their own accord, it is thus essential that they can walk without hinderness. Hoof disorders such as Mortellaro's disease (digital dermatitis) cause the cow to go to robot and feeding fence less often. This is a serious risk for your milk yield. Lely will support you with an integrated approach to hoof management, this we call Meteor. We help you map hoof health, treat all problematic cases, consistently spray the hooves in the milking robot and spray the young cows on a weekly basis including the dry cows. By constantly monitoring the hooves, you keep the hoof health good and stable.

Total approach

Attention to hoof health pays off. Not just because it contributes to higher milk yields, but also because hoof problems are still the third main reason for culling dairy cows. You invest in your dairy cows and want that investment to pay off. Healthy hooves contribute significantly to this. Adopting an all-round approach with corrective and preventive treatment improves hoof health for your entire farm. With the Lely Meteor approach, you reduce hoof disease in a safe and sustainable way. The focus is not just on individual cows, but also on the health of the entire barn. Only a comprehensive approach like this is effective.

Too often, dairy farmers have insufficient insight into hoof health. We understand this, it remains an issue. With Lely's Meteor approach every hoof of every cow is trimmed and assessed and treated accordingly as needed. Balm is applied to clean the wounds, they are then subsequently covered with a moisture and manure-proof bandage. However we go beyond this. Our Farm Management Support advisor examines any factors that could influence hoof health. The floor cubicle hygiene, the feed management and the climate in your barn. The situation is mapped in a digital app., giving you insights and an overview. This transparent and integrated approach will lead to a significant improvement.

Lely Meteor

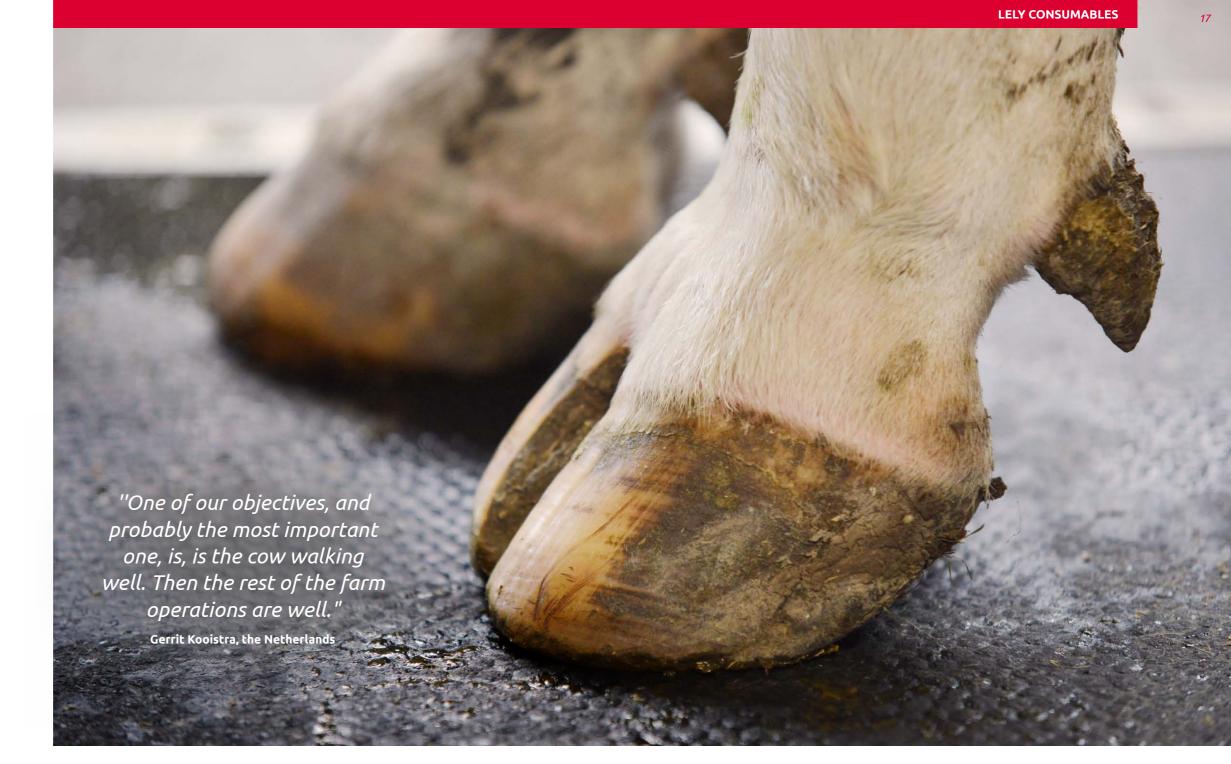
Lely offers a complete range of products for the first, corrective phase. When the hoof health is brought to an adequate level, Lely offers preventative products for the second phase. These are applied in the Lely Meteor Automatic Sprayer and were

specially developed for this. In this way, your entire herd will be preventatively treated after each milking. The Lely Meteor Wash Spray washes the hooves before milking in a very mild but effective way. Directly after milking, the Meteor Sprayer sprays the hooves one additional time. This time with the caring Meteor Care Spray. The calves and dry cows that do not visit the robot are treated with the Care spray. For this we have the Mobile Sprayer.

Zero tolerance

Too often, there is still not sufficient attention for hoof health on the farm, or the same old treatments are used without effect. We have found that many commonly used products are ineffective or, in some cases, too aggressive for both the cow and the environment. Awareness creation on hoof health

is good. Our integrated solution to hoof health is the smart approach. With its Meteor products, Lely offers a complete assortment of products to give shape to its 'zero tolerance policy'. Every animal with a hoof disorder will be treated immediately until it is healed. This approach works best when combined with advice from the Farm Management Support team. They offer comprehensive knowledge about both the problem as well as the solutions that Lely provides.







100% uptime with your Lely

Whether you own an Astronaut, Lely Juno, Lely Vector or, for instance, a Lely Discovery; these robots deserve proper maintenance. Not only because they are most likely the hardest working 'employees' on your dairy farm, but more importantly because they are a long term investment and require the best care. So you aim for both 100% uptime and a long lifespan. Lely would like to support you in this. We offer products to clean both the outside and inside of robots, preventing excessive wear and tear.

Specially developed

There are parts of the robot that are subject to daily wear and tear and that can be easily be replaced by yourself. For example, replacing the brushes and liners is very straight forward. Lely's original replacement parts are a perfect fit for your robots. Using these parts, ensures that the robot keeps functioning as it did the day you started using it.

LELY CONSUMABLES

Clean and maintained

Cleaning

Foam concept

Due to its location, your Astronaut milking robot is likely to get dirty. This can be a problem for its proper functioning, for hygiene and your job satisfaction. This is why Lely has developed a foam cleaner and a matching foam unit. With this, you can get the Lely robots (and secretly a lot of other things) super clean. This product is yet another accomplishment by Lely; developing a product that on the one hand is active enough to properly deal with often heavy soiling and that on the other hand is mild enough not to harm the robot and the tubes.

Vacuum pump cleaner

The vacuum pump is an essential component for the functioning of the robot. As the pump is used intensively, build up can occur and can have impact on its working. In order to prevent this, the vacuum pump needs to be cleaned regularly. Up until recently, it was required to (get someone to) remove the pump from the robot. Lely has however developed a special vacuum pump cleaner that can clean the pump without requiring disassembly. A safe and effective tool to keep your pump in optimal condition.

TDS lens cleaner

The lens of the detection unit of the Lely robot is close to the cow to ensure that the connection of the teat cup is done fast and flawlessly. It is unavoidable that the lens also gets dirty. This slows down or hinders the connection. This makes it of vital importance to clean the lens regularly. For this reason, Lely has developed its own lens cleaner. This product is entirely safe to use on the robot's lens and prevents scratching the lens. Meanwhile this cleaning product cleans fast and streak-free. This is yet another way Lely contributes to problem-free milking.

Maintenance

For the daily maintenance of the milking robot, Lely delivers all components you can easily replace yourself. By this, we mean liners, brushes, tube filters, strings, milk tubes, duplo tubes and tube protectors. All other parts for your Lely are, available to be ordered separately, and as individual pieces for repairs or a big maintenance.

Strings

The strings that pull the cups towards the arm after each milking may appear to be a secondary component to the milking robot. Appearances however can be deceptive. Lely has carefully thought about the design and quality of these strings and everything imaginable has been done to make sure they are not the weakest link. We chose string quality that works flawlessly in an environment full of moisture and manure. The string needs to be able to withstand kicks, so must



be both elastic and water- and wear-proof. The Lely strings meet these demands. Using the original Lely strings rewards itself through problem free robot use. Alternatively, if you use sand in the cubicles then Lely provides special chains to use instead of the strings.

Teat liners

We give teat liners the necessary attention. These are the essential components that link the Lely robot and your dairy cows. The teatliner is of the utmost importance and needs to be tailored to the shape of your livestock's teat and goals. This is why Lely offers eight different types of silicone liners and one rubber variant. Lely knows its milking robots like no one else and knows which settings of the robot and liner best suits your goals. They also know that no dairy cow is alike. So it makes sure to offer straight and more conical teat liners with a high or low head and a smaller rubber variant. It important to choose the right type of teat liner that ensures all milk is quickly and carefully milked from the udder. It really rewards you in your yield and the health of your herd to pay attention to this. Our milk yield specialist will gladly support you with this. Therefore, it is vital for your robot that you choose original Lely teat liners. These have a consistent dimension and a very high wear resistance. Of course, Lely can give you support in choosing the right teat liner

Brushes

Original Lely brushes can be distinguished by their red and white pattern. Both colour bristles have their own thickness and hardness so they can work in tandem. Of course, the Lely brush has a cleansing effect and contributes to having a tank full of clean milk. The brush also has stimulating effect. This initiates the production of oxytocin; the hormone that acts as a neurotransmitter and stimulates the start of the milk production. By cleaning twice for three seconds using the special brushes you accomplish the cleaning of the udder, ensuring an optimal connection with the milking cup, while also directly stimulating the start of milk production. The Lely brushes were developed for these functionalities, but also for their wear resistance. They need to be replaced significantly fewer times than imitation brushes.

Tubes

The milk tubes transport the milk of your cows. For this reason, the tubes are made of premium silicone materials with a smooth surface. In doing this, we prevent the adhesion of bacteria and other pollutants and we can guarantee a hygienic milking process. However, tears in the tube could impact your milk quality negatively. Due to the fact that the tubes of a Lely robot are in constant motion, this can happen. The duplo tubes and the cover that was specially developed for them, will be less susceptible to wear and outside influences as a result from usage. This cannot be prevented but can be remedied. Lely delivers original tube sets that can replace the worn parts. These tubes were specially developed for this application and designed to be able to withstand the bending they experience during the process. It is essential to check the quality of the tubes regularly for the functioning of the robot and to replace them before problems arise.



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