

Put the Plus⁺ in your rotary DeLaval teat spray robot TSR



Put the
PLUS⁺
in your
rotary

DeLaval teat spray robot TSR sharply cuts labour costs

Many of today's dairy farmers are looking for productivity gains to maximize the quality of milk production and maximize profitability. Labour issues are very real from both an availability and quality perspective. A robotic solution that automates the benefits of post teat spray application while reducing labour, is proving to be very effective in addressing these challenges.



The DeLaval teat spray robot (TSR), one of the first automatic post-spray solution for farmers with parallel rotaries, provides an accurate, optimal and consistent method for applying teat spray after milking. The TSR is helping to ensure the good health of cows while eliminating the need for traditional, labour-intensive teat spraying and boosting farms' profitability.

Use your time more effectively

Farmers and their staff can spend many hours per day manually spraying teats after milking. So why not let the TSR do the work and spend your time – and your employee's time – on more productive activities.

As a stand-alone unit for external milking rotaries, the TSR sprays your cows for optimum mastitis control without affecting the overall throughput. Advanced technology contributes to the robot's speed and application precision – serving up to 400 cows/hour.

Consistent application

One of the great advantages of the TSR robot is that it sprays the teats in exactly the same way each time, ensuring an atmosphere of calm and predictability in which cows thrive. This consistent application provides the best opportunity to significantly reduce the risk of infection.

How does it work?

The DeLaval teat spray robot TSR is positioned on the outside of the rotating platform and uses advanced cameras on a robotic arm to locate and spray each cow's teats with a disinfecting solution as they pass. The TSR robot facilitates high capacity milking because it can be used with any type of DeLaval parallel rotary.

The TSR does not require a connection to the milking system's management program. Because of its high accuracy, the TSR is extremely efficient, significantly optimizes efficacy by placing the spray on the teat and not on the udder, leg or tail of the cow.

The TSR software identifies the individual cow and its teat positioning via a Time of Flight (TOF) camera, ensuring correct application of the teat spray solution. The TSR is also equipped with a safety system, preventing accidents to personnel and livestock.

This noiseless and unobtrusive technology moves quietly, swiftly and accurately, and the cow's only sensation occurs when her teat is sprayed.

DeLaval InService™

The dairy farm is a tough environment that provides challenges to equipment. The DeLaval InService™ program for the TSR ensures the reliability and the performance of this automation by providing a preventative maintenance agreement that ensures the TSR will perform its duties as expected and give you peace of mind.

Our professional service technicians will take care of your investment and see that you always get the most out of your TSR.



"If we didn't have the teat spray robot, it would have been necessary to hire an extra farmhand," explains Karsten Kristensen, joint owner of Harehedegaard.



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Your DeLaval dealer**Providing the full solution**

DeLaval provides a range of approved test-spray products that work hand-in-hand with the TSR to provide superior bacteria-killing and teat-conditioning properties. The costs per case of clinical mastitis can be as high as €500 per cow. By using proven products correctly applied reduces this risk and ensures highly productive cows.

DeLaval TSR tested and approved for use with DeLaval teat spray products

DeLaval is developing a wide assortment of teat dip and teat spray products that:

- Are subject to strict internal technical requirements
- Comply to international standards for teat disinfectants
- Are correctly registered according to national legislation

DeLaval TSR has been extensively tested with several DeLaval teat spray products that have been optimized for use with the teat spray robot. For further information around local requirements and availability of suitable DeLaval teat spray products to use in conjunction with DeLaval TSR, you are kindly invited to contact your local DeLaval representative.

A customer story: One robot sharply increases farm's productivity

At Harehedegaard, a farm near Grindsted in Jutland, Denmark, some 600 cows are responding positively to the "hiring" of DeLaval teat spray robot TSR. In a few short months we saved almost one FTE as we are milking 3 times day. Also udder health has improved, significantly reducing infection from highly resistant staphylococcus.

The robot runs really well. It handles the spraying of the teats safely and precisely after each milking, and the cows feel calm around the robot. It does exactly the same thing each time, something that cows as creatures of habit enjoy.

Karsten says that the farm's workers can easily handle the simple operation of the teat spray robot. They only have to remember to wash and polish the robot's camera before milking.

"We saved almost one FTE as we are milking 3 times day. The robot uses such a little stream of teat spray – an average of 9 ml of teat spray per cow. That is only about half of the amount used in traditional hand spraying, and still the treatment is more precise and effective."

Karsten Kristensen, joint owner of Harehedegaard.

