Imagine if solid floors are automatically cleaned, with a manure robot?

You know that a clean barn floor results in cleaner hooves, less manure in the boxes and cleaner tails and udders. And you also know that this prevents hygiene-related claw and udder infections and promotes the healthy natural behaviour of the cows. This allows you to evaluate their fertility more efficiently. Traditional manure scrapers come with many disadvantages. The chains and corner pulleys are obstacles in the walkways, waiting areas aren’t being cleaned and each time the manure scraper goes by the cows are up to their dew claws in manure.

That is why Lely developed the Discovery 120 Collector.

Bright farming is a choice.

Follow the Lely Discovery 120 Collector

Lely has tested the new manure robot with customers on several solid floor types and in various barn conditions.

Do you want to be kept up to date about new developments in the upcoming months? Then follow us on Facebook:

www.facebook.com/LelyGroup
Collecting manure instead of scraping

Lely has over a decade of experience with mobile barn cleaners for slatted floors. With the introduction of the Collector Lely applies this experience to cleaning solid floors. Rather than pushing the manure forward, the Collector uses a vacuum pump to collect the manure in its tank. At the end of a route the Collector releases the manure above a dumping location.

Healthier hooves thanks to a unique manure robot designed for cleaning solid barn floors

The Lely Discovery 120 Collector is a revolutionary manure robot designed to clean solid barn floors. The machine collects the manure rather than scraping it around the barn. This not only results in a cleaner floor, but also prevents the cows from standing in manure up to their dew claws, as is the case when a manure scraper is used.

How does it work:

Collecting manure instead of scraping

Lely has over a decade of experience with mobile barn cleaners for slatted floors. With the introduction of the Collector Lely applies this experience to cleaning solid floors. Rather than pushing the manure forward, the Collector uses a vacuum pump to collect the manure in its tank. At the end of a route the Collector releases the manure above a dumping location.

Emptying the manure tank and filling the water bags

- A route ends at a dumping point.
- By dispelling the vacuum the manure falls into the hole.
- Simultaneously, the water bags are automatically refilled.
- The Discovery returns to the charging station.

Spraying water

- The sprayer at the front of the robot makes the manure more liquid.
- The sprayer at the back prevents slippery floors.
- Both sprayers can be switched on and off depending on the density of the manure and the desired level of cleanliness.

Taking manure

- The scrapers guide the manure to the suction hole of the manure tank.
- A vacuum in the tank sucks the manure inside.

Following routes

- The Discovery automatically starts following a preprogrammed route from the loading station.
- Thanks to built-in sensors, the manure robot always knows its exact position in the barn.

Water for a cleaner result and additional grip

The Discovery Collector can spray water from both the front and the back of the machine. Spraying from the front results in better manure intake, and spraying from the back leaves behind a wet floor for additional grip. This water is stored in two water bags in the manure tank. As the manure tank gets filled the volume of the water bags decreases, freeing up more space for manure. This makes it a compact machine, cows can easily move around the Collector and it can drive underneath sorting gates.

No obstacles and maximum flexibility

The Discovery Collector navigates independently using built-in sensors. Additionally, no cables, corner pulleys, or raised passages are required, which is the case when using a manure scraper. Less obstacles decrease the incidence of white line defects and ensures cows can move more safely through the barn. Rest assured that the routes of the cleaning programme can be easily tuned to the daily rhythm of the barn and the cows.