By automating repetitive work, you have more time for areas where you see opportunities.

The Lely Juno pushes the feed in all types of barns and can even move from one barn to another.

Increasing the feed pushing frequency has multiple benefits for you and your cows.

Increasing the feed intake has never been easier

www.lely.com
“The cows eat better now we doubled the feed pushing frequency and also push the feed during the night.”

Maxime Auffrais
Châteaubriant, France

“Two years ago we used a tractor with a blade to push the feed every morning, noon and evening. With the arrival of the Juno automatic feed pusher we doubled the feed pushing frequency and got more time to take care of the cows. The cows eat better because it also pushes the feed during the night. I think the sound of the Juno lures cows to come to the feed fence more often. We have less rest feed and even the visiting behaviour of the milking robot has increased.”

Increasing the feed pushing frequency really pays off. It stimulates frequent consumption of feed throughout the day and night which results in a higher feed intake of the herd. This has a positive effect on animal health, fertility, production and also on your finances.

The intake of a large quantity of rapidly fermentable feed causes an extreme drop in pH levels, which can cause sub-clinical rumen acidosis. Rumen acidosis damages the rumen wall. The feed passes through the rumen too quickly and bacteria, that ferment the crude fibre, are ineffective at a low pH.

This causes a poorer utilisation of the feed. Cows should eat 10 to 14 meals every 24 hours for a good and stable pH level and thus a more efficient use of the feed.

Increasing the food pushing frequency stimulates cows to come to the feed fence more often and fill up the rumen again. By automating this recurring work, you can increase the feed pushing frequency while significantly reducing your labour requirements and fuel costs.

This way the Lely Juno automatic feed pusher makes your days more flexible, your feeding process more efficient and your business more successful.

Smart feeding works

Your feeding strategy has a significant impact on your results
Increasing the feed pushing frequency has multiple benefits for you and your cows

24/7 constant availability of ration
Every cow, even a lower ranked one, is able to eat the ration she needs for optimal rumen health, growth and production. By pushing feed regularly, it is always within the cows’ reach. Feeding and feed pushing stimulates cows to walk to the feed fence and fill up the rumen again.

Optimal feed intake
Feeding is the best motivator for cows to come to the feed fence. When you feed with a feed wagon, feeding 2 to 3 times a day achieves the optimal balance between the amount of work and an optimal feed intake. This means that you have to push the feed 6 to 8 times per day.

Labour-saving
Quite often, labour is a limiting factor in keeping the feed in reach of the cows all day and night. Based on three feed pushing rounds of 10 minutes each day, an automatic feed pusher will save you at least 180 hours a year. This is more than a monthly wage of a FTE per year. If you switch to 6 feed pushes per day, this amount doubles!

More flexibility
By automating the repetitive work of feed pushing, you do not have to interrupt your activities multiple times a day. Use your farming skills where you see opportunities. Grassland management, the breeding side of herd management, or tinkering with cow rations and optimising the feed conversion efficiency, for example. This is all more valuable than pushing the feed yourself!

“The cows come at the beep when the Juno starts running.”
Jérôme Auffrais, France
120 dairy cows and 400 rearing calves

The benefits of automatic feed pushing
More benefits of automatic feed pushing

More frequent use of the milking robot
When combined with a milking robot, the Lely Juno has proven that it increases the visiting rate of the robot. Increased visits result in higher milk production, especially for lower-ranking cows. In addition, the milking robot is used more efficiently and less cows need to be collected for milking.

Sorting and rest feed
Pushing the feed more frequently stimulates the feed intake and reduces the amount of rest feed. The cows have less opportunity for sorting, making the eaten ration almost equal to the fed ration. Aim for 3–5% leftovers before you provide new feed. If the cows are waiting to eat with 10% leftovers, there could be something wrong with the mixing quality or palatability of the feed. Red leftovers are waste and should be discarded.

Improved animal health
50–70% of the dairy cows' energy requirements come from volatile fatty acids which are residuals from the fermentation of carbohydrates. The microorganisms that ferment the crude fibre are ineffective at a low pH. Many small meals result in a higher and more stable pH which enables cows to make better use of the feed they eat. Frequent feed pushing stimulates cows to eat more frequently and helps them get the most out of the feed.

Less stress
Cows eat, lie and walk in groups. Stress and aggression at the feed fence occur when feed is limited or difficult to access. The cows lower in rank will wait until the main group is resting. They eat more quickly, and often eat less. This results in more problem animals. If there is always sufficient palatable feed available, you limit the effects of having too few eating places.

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Peace of mind
Peace of mind is most important throughout day-to-day activities. This means being able to rely on employees, machinery and a steady partner in service and support. It’s good to know that behind your Lely Juno is an organisation you can trust.

Certified technicians
You’ll have full access to Lely’s certified technicians through your local Lely Center. They ensure a perfect installation, set the desired routes and provide the right service for a long and trouble-free life span.

Regional knowledge & experience
You can also rely on knowledge, help and support from the Farm Management advisers of your local Lely Center. They ensure that your Juno plays its role in optimising productivity and profitability of your farm.

Dairy farming is in our blood
Many of Lely’s staff members come from a farming background themselves. They understand how farms work and are trained and tested on their knowledge. Reliability and expertise to assist both new and existing customers is on hand. Because the local technicians and advisers have lots of experience with other systems that are installed in your area, they are up to speed.

Most experienced in dairy automation
Lely is the market leader in dairy automation. In regards to automatic feed pushing, we have gained more than 10 years of experience with the Juno and 5 years with the Lely Vector automatic feeding system. All this knowledge was used to develop this third generation Juno.

The Lely Center in your area is a partner in dairy automation you can rely on. Over the years, Lely has built a comprehensive network of specialists, combining experience in dairy automation with local knowledge. Their main goal is to help you get all the benefits from your Lely equipment.

“We have received a very clear explanation from the service engineers.”
Wim Wijnhout, Netherlands - 200 dairy cows

The milking and feeding experts in your region
The Lely Juno automatically follows the feed fence. The ground-driven rotating surface on the lower part of the machine pushes the roughage towards the feed fence. A heavy steel block forms the ‘body’ of the feed pusher, ensuring that the machine has sufficient mass to push the fodder.

**Low energy consumption**
The charging station, which can be mounted on the wall or floor in the feeding alley, serves as the point of departure and arrival for each feeding route. The Juno charges quickly and easily, and the extremely energy-efficient motor requires only 102 kWh per year. This saves a lot of fuel costs when compared to a tractor or shovel and has a positive effect on CO₂ emissions in the barn.

**How it works**
The Lely Juno moves along the feeding alley automatically, following the feed fence. The ground-driven, rotating surface on the lower part of the machine pushes the roughage towards the feed fence. A heavy steel block forms the ‘body’ of the feed pusher, ensuring that the machine has sufficient mass to push the fodder.

**Safety**
The Lely Juno operates in the feeding alley, which is an easily accessible part of the barn. Therefore, safety is of paramount importance. Consequently, the feed pusher features a collision detector. This ensures that the feed pusher stops as soon as it hits an obstacle.

**Designed for any type of barn**
Since the Lely Juno is a stand-alone machine, barn modifications are seldom required and it can be used in almost any type of barn. The Lely Juno handles all types of feed fence with ease, making it suitable for any type of barn - even barns with a small feeding alley.

**Increasing the feed intake has never been easier**
Pushing feed yourself is now a thing of the past. Using the Lely Juno, you can increase the feed pushing frequency and reduce your labour and energy costs.
Ultrasound sensors
The Lely Juno uses ultrasound sensors to follow walls and feed fences at the desired distance without changing the route.

Metal guiding strips
The Lely Juno uses an induction sensor to follow metal guiding strips when driving towards the charging station and, if needed, to other barns.

Cleaning route
The Juno can also clean the feeding alley, for example one hour before feeding time. A cleaning route starts on the outside of the feed alley and pushes everything towards the feed fence.

Working night and day
Drive various routes at every desired distance to the feed fence 24/7
The Lely Juno can be controlled with the ‘Lely Control Plus’ app via a Bluetooth connection. This means that you can operate the Lely Juno from one or more smartphones. Creating and adjusting a route can be done easily with pre-set actions and steering the Juno with a finger on your screen. Within just one route per feeding alley you can enter multiple feeding rounds and distances from the feed fence.

**Dynamic pushing**

The feed is never divided evenly over the entire feeding alley. Thanks to the smart software, this does not matter. For each route you can set the minimum distance to the feed fence, the pushing frequency and the feed type per group. Based on this data, the software determines the right resistance level and pushing force. Based on the amount of feed at a certain spot, the Juno automatically corrects the optimal distance to the feed fence. This ensures that the Juno pushes the feed correctly over the entire length of the alley in every situation.
Many farms have grown over time and house their animal groups in different barns. It is good to know that the Juno works with all kinds of barn layouts and feed fences. However, when the Juno needs to push the feed in multiple barns, it can be customised with the following options:

**Build your own Juno**

Flex package
The Flex package includes all options except the barn door control (for opening and closing electric doors). You can also order the options individually, or add them after installation.

To have the complete set of options integrated during the manufacturing process, order your Lely Juno with the Flex package. However, if you wish to choose selectively from our wide range of options, these will be integrated by your local Lely Center during the installation of the Lely Juno.

Skirt lifter
Thanks to the skirt lifter, the Juno can pass small obstacles like floor railings. It also provides sufficient ground clearance when driving on slopes with an incline up to 15%. The ground clearance also keeps the skirt free from mud and manure so that it does not pollute the feed.

Left and right pushing of roughage
Due to the bi-directional feed pushing feature, the capacity is greatly increased. With bi-directional wall tracking, the Juno is able to follow walls on both the left and right hand side of the alley or feed passage.

Barn door control
In combination with the barn door control, the Juno is able to open and close electric doors automatically when driving from one barn to another.

LED light
An integrated LED light makes the Juno more visible in the dark. This increases yard safety when driving from one barn to another in the dark.

Electric bumper protection
The electric bumper protection is a metal strip with an electric pulse that is mounted on the bumper. The pulse does not harm cows or humans but prevents cows from stopping the machine by touching the bumper.

Technical specifications Juno

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter (cm)</td>
<td>110</td>
</tr>
<tr>
<td>Height (cm)</td>
<td>110 - 177</td>
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<tr>
<td>Weight (kg)</td>
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<tr>
<td>Height (cm) of the push blade</td>
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<tr>
<td>Drive</td>
<td>Electric motor</td>
</tr>
<tr>
<td>Speed (m/min)</td>
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<tr>
<td>Batteries (12V/55Ah)</td>
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<tr>
<td>Determination of direction of movement</td>
<td>Gyroscope and ultrasound</td>
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<tr>
<td>Maximum slope</td>
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<td>Minimum width feed alley</td>
<td>1.25m + width of feed</td>
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<td>Max driving distance</td>
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<td>Allowed working temp</td>
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<td>Dynamic pushing</td>
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<tr>
<td>Left and right pushing</td>
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<td>Electric bumper protection</td>
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<td>LED light</td>
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<td>Door control</td>
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<tr>
<td>Skirt lifting</td>
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</tr>
<tr>
<td>Skirt tilting</td>
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</tr>
</tbody>
</table>
Smart feeding works with the Lely Juno

Frequent feed pushing, throughout the day and night, stimulates the dry matter intake of the herd. This optimises rumen health, feed efficiency and productivity. By automating this recurring work, you make your life easier, your production more efficient and your business more successful. Learn more about smart feeding at www.lely.com/feeding

Bright Farming is yours by choice.

Start smart feeding with your local Lely Center

“I prefer spending more time on taking care of the cows than pushing the feed.”
Maxime Auffrais, France
Lely, Astronaut, Astri, Atlantis, C4C, Calm, Cultive, Capsule, Commodus, Compedes, Cosmix, Dairywise, Discovery, F4C, Gravitor, Grazeway, Hubble, I-flow, InHerd, Juno, L4C, Lely Center, Lelywash, Luna, Nautilus, Orbiter, Quaress, Qwes, Shuttle, T4C, Vector, Viseo, Voyager and Walkway are registered trademarks of the Lely Group.

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