

Barn Layouts for milking robots



Explore the possibilities.



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Five Lely Milking Robot Configurations

Robotic milking is a new lifestyle for the cow and a new management style for the cow owner. Choosing a milking robot configuration is a matter of personal preference. Regardless of configuration, it is important to ensure there is plenty of space around the barn and in front of the milking robot for optimal cow flow.

When considering milking robot configurations, the producer needs to plan accordingly based on how the operation will be managed. When trying to achieve optimal cow touches, the producer needs to identify where those cow touches will take place. The more cow touches that take place in the management pens, the more space is needed.

Whether considering a retrofit or new construction, Lely is excited to establish a solution that works best for each barn. Take a look at five common milking robot configurations to consider when designing a barn.

- Head-to-Head
- Tail-to-Tail
- Head-to-Tail
- Tollbooth
- L-Shape



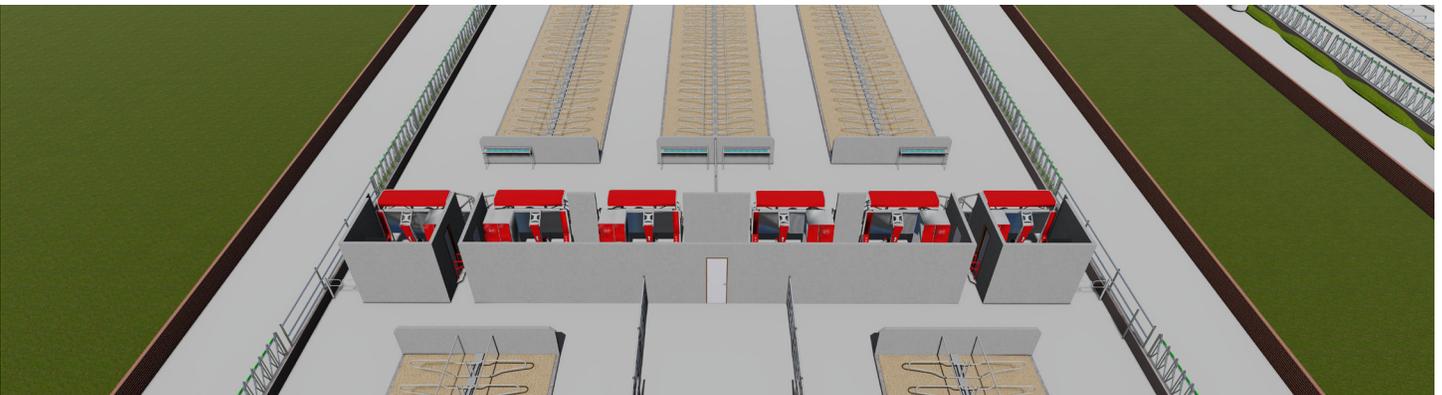
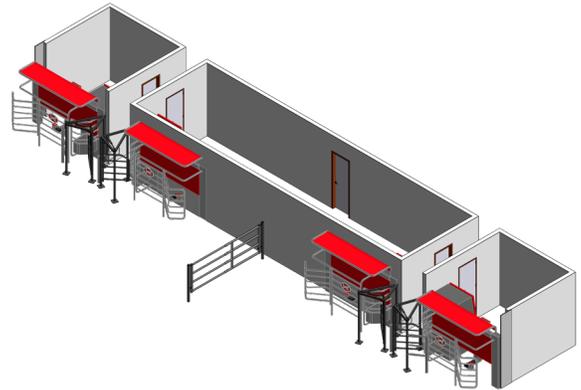
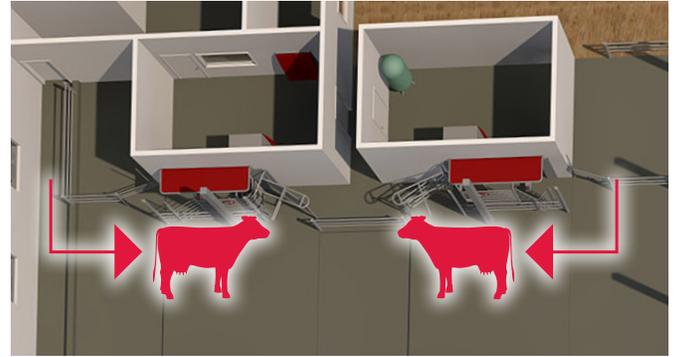
Head-to-Head

+ Pros:

- All robots are visible with the possibility of a clear sight throughout the entire pen
- Allows for flexibility of sorting with multiple robot rooms
- With multiple robot rooms this configuration allows for cows to return back to robot from management pen
- Different robot arms within the same pen (left and right-handed robotic arms)

- Cons:

- Manure scraping around the robots is challenging. Flush barns or robotic scraping units would be advised for cleaning
- Clean access to all robot rooms is not always possible
- If robot rooms are combined cows cannot be sorted into a management pen
- Different robot arms within the same pen (left and right-handed robotic arms)



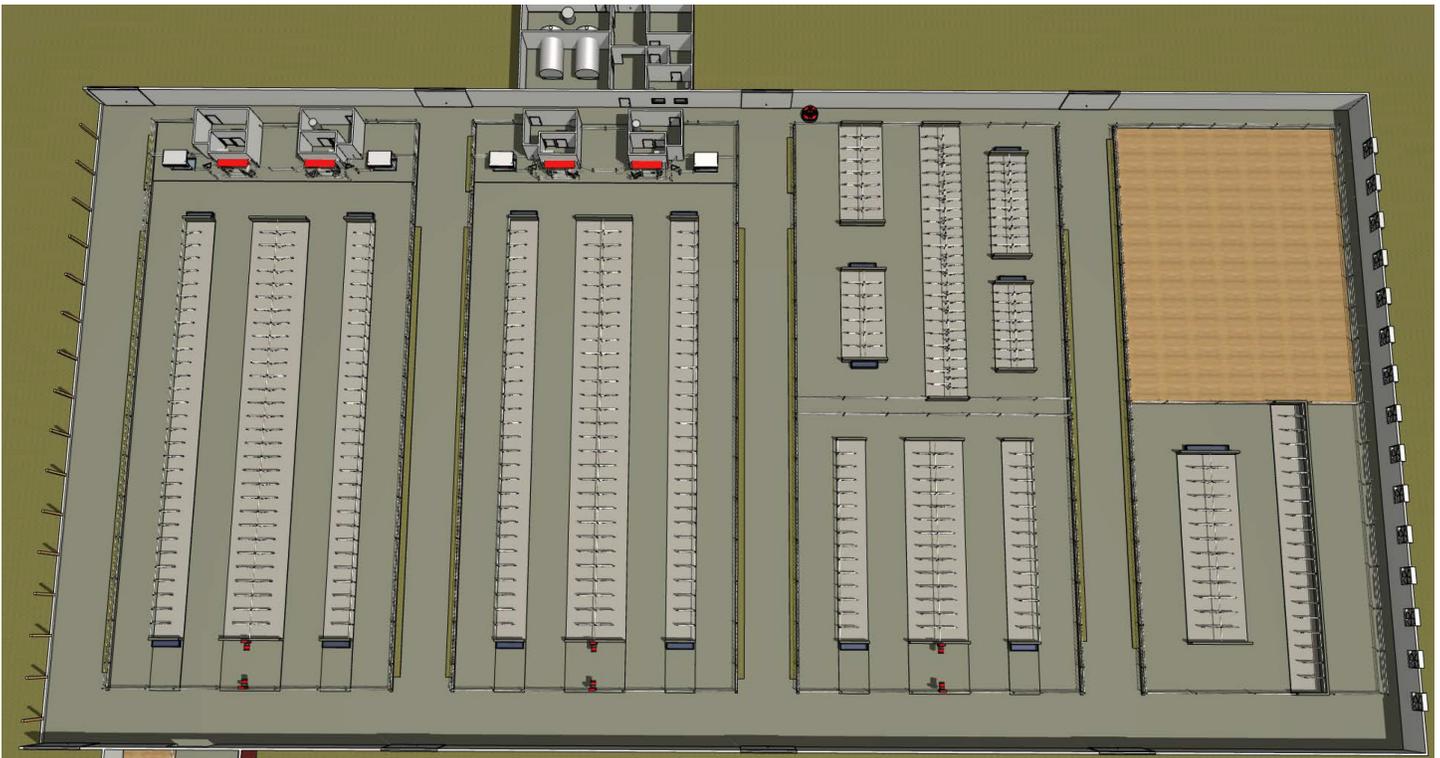
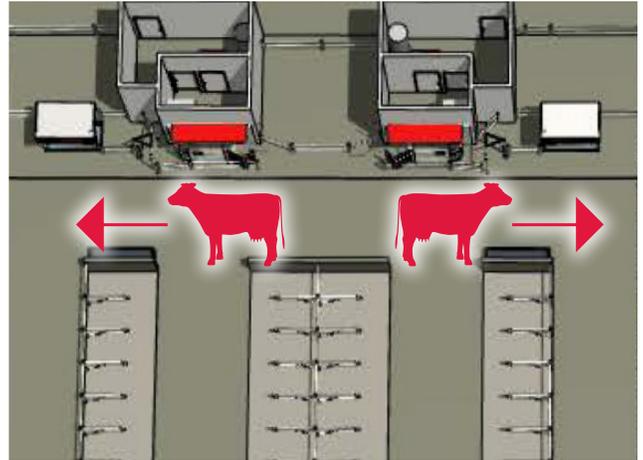
Tail-to-Tail

+ Pros:

- One split-entry pen
- Easy to sort cows into a management pen
- Cows have an easy exit from the robot
- Different robot arms within the same pen (left and right handed robotic arms)

- Cons:

- Multiple robot rooms and more space needed
- Potential for congestion in front of the robot entrance
- Different robot arms within the same pen (left and right handed robotic arms)



Head-to-Tail

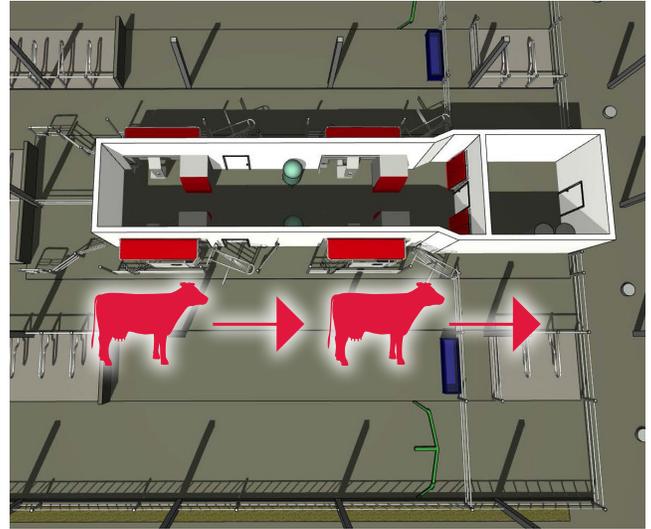
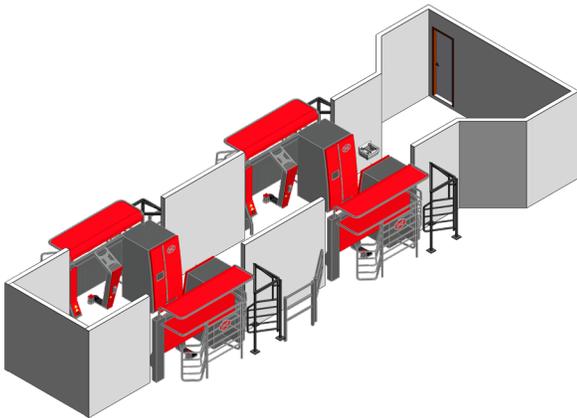
(Two in a row tandem)

+ Pros:

- All robots are in the same robot room
- Cleaning and servicing robots is more convenient
- Manure scraping past the robots is more convenient
- The same robot arm configuration throughout the pen

- Cons:

- Cows within the management pen are not provided easy access back to a robot (gating can be built to accommodate this)
- Sorting cows to the management pen comes with increased risk
- Potential for congestion at the entrance and exit of the robot
- The same robot arm configuration throughout the pen



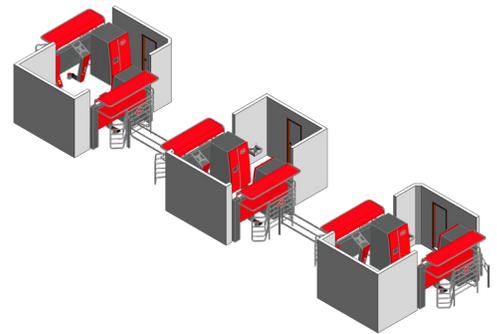
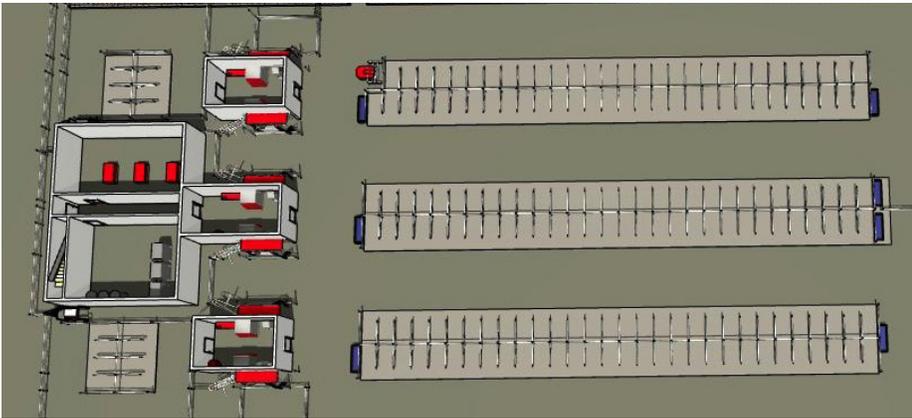
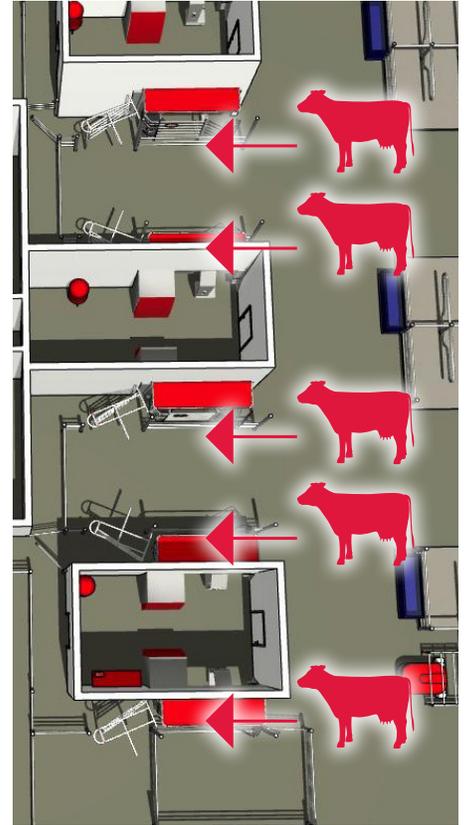
Tollbooth

+ Pros:

- Cow and management friendly
- Multiple robots in one robot room
- All cows exit the robots through a common lane
- The single return lane allows easy foot bathing and sorting options
- Less congestion in the open area in front of the robots. Only cows that are due to be milked reside there and cows that have gone through the robots are sent to the feed lane
- Allows access to cows in the management pen to get to the robot to be milked

- Cons:

- Multiple robot rooms required within the same pen
- Sorting occurs with a sort gate after the robots versus using the robot to sort cows to the management pen (additional equipment is needed)
- Clean access to all robot rooms isn't always possible (retro versus new build)
- Servicing and cleaning the robots inconvenient due to multiple robot rooms
- Ensuring proper flow through the common exit lane is critical (cows could block the lane)



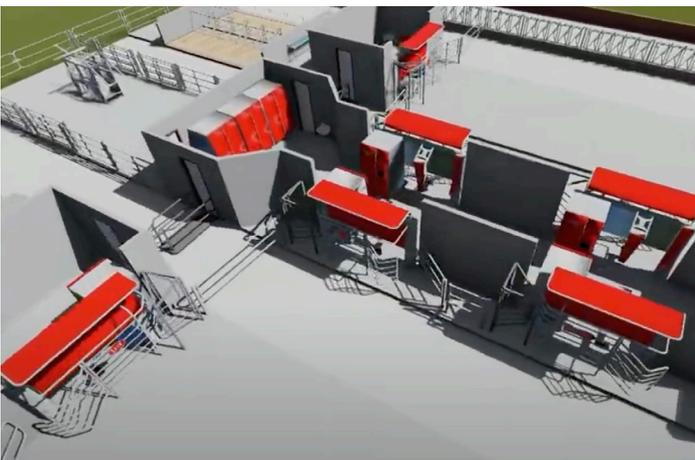
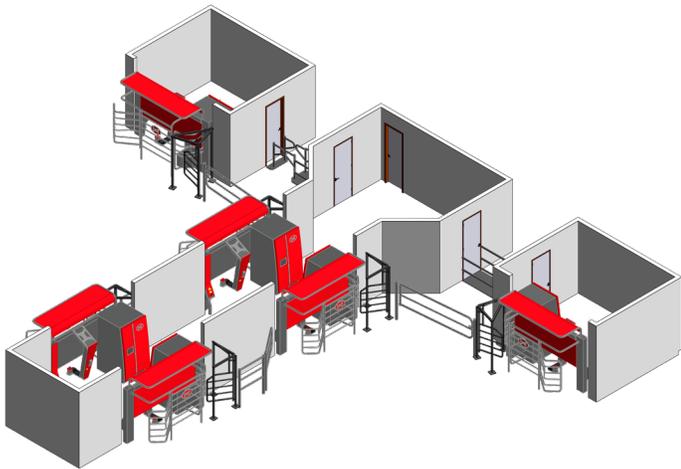
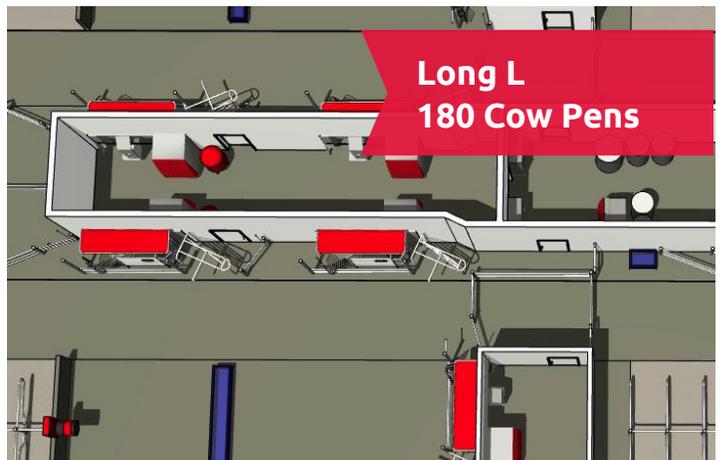
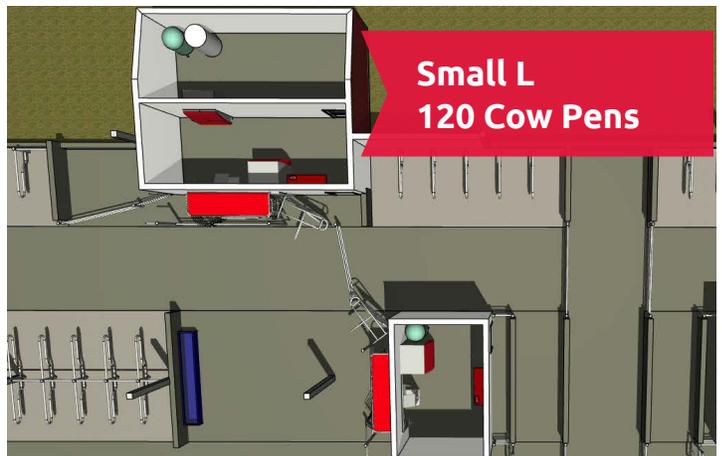
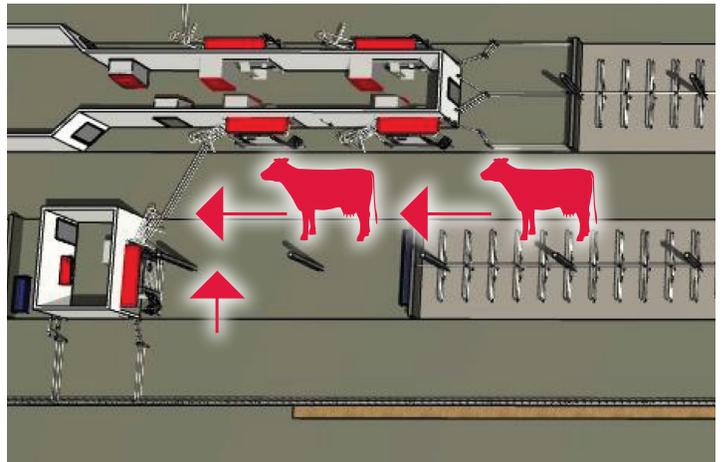
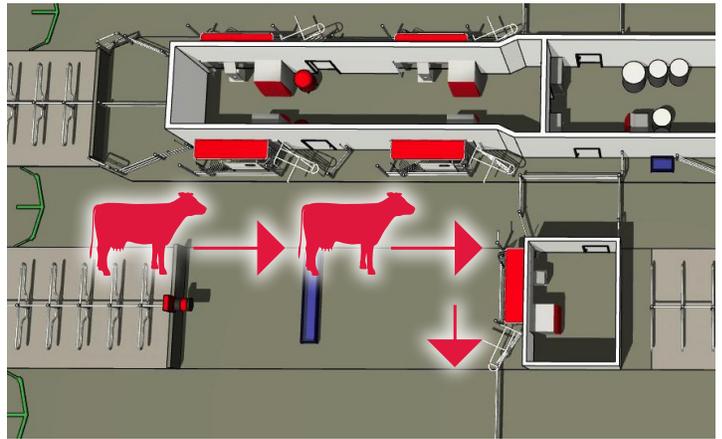
L-shape

+ Pros:

- Allows for optimal cow flow
- Allows cows from the management pen easy access to a robot to be milked and then return back to the management pen
- Sorting is more convenient. Each robot can sort to the management pen
- Manure scraping past the robot is more convenient
- Combines the advantages of other configurations

- Cons:

- Multiple robot rooms required within the same pen
- Clean access to all robot rooms is not always possible
- Servicing and cleaning the robots is less convenient with multiple robot rooms



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