



# The Agrifarm housing system for milk production

Housing system with improved indoor  
climate – all year round

 **AGRIFARM**



## The Agrifarm housing system for milk production

With Agrifarms new developed dairy barn you will be prepared to meet the challenge as a milk producer in the future.

### Wide barn = good logistic

The barn for cows is wider than what you normally see – 74 meters with 4 sections and 12 rows of cubicles. With a wider barn the length is shorter, this means that you and your cows in the daily work have the best logistic conditions. The advantages you achieve with the Agrifarm housing system, you will have from the start and will continue when or if you later expand the barn.

The 4 sections in the cow barn gives a better opportunity to sort the cows after their specific needs for feed/position in lactation. The building area is typically smaller and the barn building is more compact than a traditional building.

### Benefits with the Agrifarm cow barn:

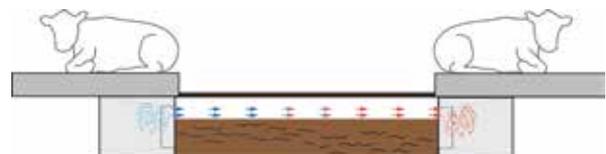
- Good logistic
- Better indoor climate
- Fewer hoof and udder diseases
- Higher animal welfare
- Better health status
- Lower environmental impact
- More milk
- More cows

### Hybrid ventilation - New ventilation principle

The barn is ventilated naturally, like dairy housing systems are in general, but we have chosen to use light valves (adjustable window openings) to be able to ventilate more precisely and furthermore we have built ducts under the cubicles for the floor extraction. The result is a new ventilation principle, which we call hybrid ventilation. This choice gives the best opportunity to ventilate more precisely and to catch the major part of ammonia- and the odor emission and furthermore it creates the best climate for the cows.

### Ventilation under the cubicles

Ducts for the floor ventilation are built, under the cubicles, and through these, air is blown/sucked across the slurry channel. With this method the ammonia and the odor is caught directly at the source, just above the top of the slurry in the manure channel, which means that the environment in the barn is not affected and the output to the surrounding nature is limited, to the benefit of your cows, workers and the environment close to the farm.



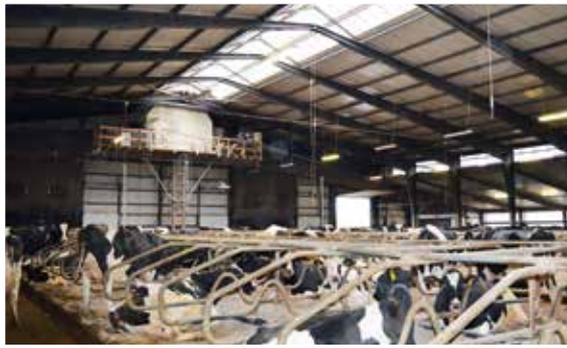
*Collection of ammonia and odor compounds in the slurry channel.*

### Isolated barn for a better indoor environment – all year

The cow barn is insulated, including both the roof and façade. This is done to secure a comfortable climate for the cow's summer and winter. In the summertime, the insulation will keep out the heat and in the wintertime the insulation will hold the heat production from the animals inside the barn and keep the temperature in plus degrees so there's no frozen days inside the barn.

### Animal welfare

Slatted floor is the best choice to ensure good slip resistance and normal hoof wear. The cow barn is prepared for sand in the cubicles, in respect to the health and welfare of the cows.



### Better barn environment gives better profit

Lower ammonia in the air in the barn means that hoof- and udder health is significantly improved. Your cows will repay you with higher performance and a smaller vet bill.

### Digital Dermatitis does not exist

Experience from this type of barn has shown that fiber from separated slurry as bedding material is an excellent choice. The lying comfort and the hoof health for the cows is optimal.

Hoof health is better because under the floor extraction removes the ammonia. By removing the ammonia, the pH is lowered, and this results in less optimal conditions for Digital Dermatitis. Experience from the first built Agrifarm barn for cows has shown that the occurrence of Digital Dermatitis is almost non-existent.



### Best available technic on the market

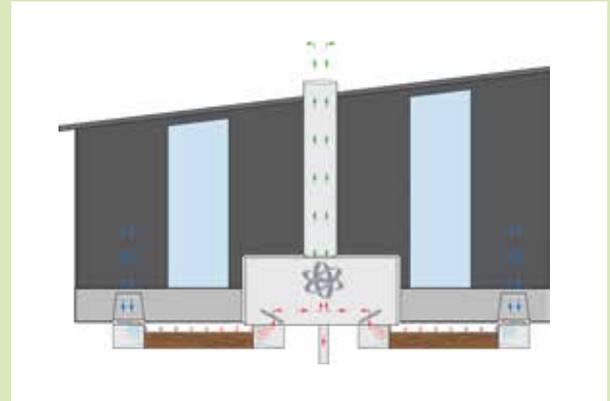
The air cleaning system is, at the moment, the best technology on the market to reduce ammonia and odor from cow barns.

### Air cleaning = more cows

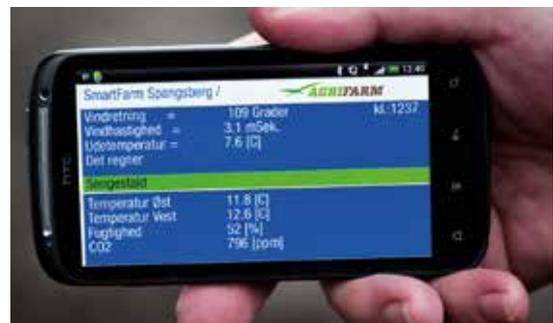
The barn can be equipped with air cleaning if you wish or if your environmental approval requires you to do so. Through the ducts under the cubicles, it is possible to remove 75 % of ammonia and up to 50 % of the odor. This gives you a unique opportunity to expand your number of livestock and at the same time minimize the environmental impact to the nature and neighbors.

### Air cleaner to cow barns

The air cleaner – Agri AirClean, is developed for floor-extraction especially in high concentrations of ammonia and odor. This is also a possibility in open barns, therefore a low temperature is no challenge for air cleaning. Agri AirClean is an effective and economic air cleaner.

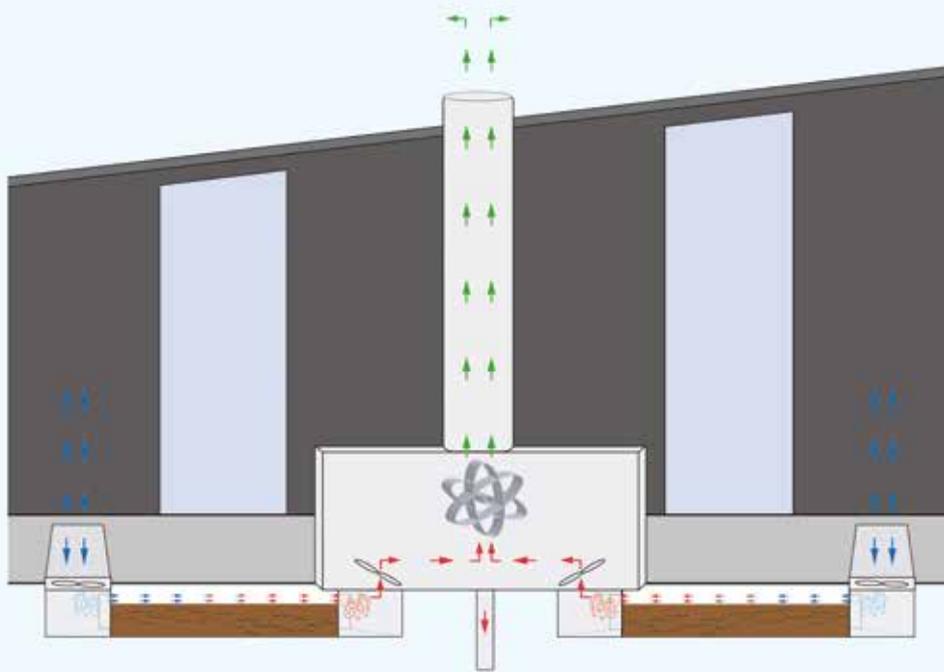


Collection and air cleaning



### Smartfarm® - management of lighting, ventilation, climate and air cleaning in one unit

The Smartfarm® management system embraces the overall management, regulation and monitoring of the entire housing system. The ventilation is regulated by temperature, moisture and CO2 sensors combined with a weather station, which measures wind direction and wind speed. This automatic management ensures good conditions for the animals all year round. Furthermore, the floor extraction is regulated dependent on the desired amount of collected emissions, just as the air cleaning system. Regulation and management of lighting is important to intelligently reduce the energy consumption while at the same time ensuring good lighting conditions for the cows.



Are you interested in knowing more about our solutions,  
please contact:

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You can also go to [www.agrifarm.dk/en](http://www.agrifarm.dk/en)

- The EU environment Award 2012  
Environmental technology for  
dairy housing system



- The Agromek Award 2012  
Intellifarm for slaughterpigs



- The Agromek Award 2009  
Environmental technology for  
dairy housing system

