

Commercial offer

Fresh air supply system for livestock farms
Inflatable curtain InflaVent



Principle of operation

Air from the outside is pumped into a three-layer membrane. Under its influence one or several internal chambers of the membrane straighten and close the window opening. In the full up position InflaVent seals and insulates the window opening. The height is adjusted by turning air blowers on and off. Air blowers, in their turn, are operated by temperature controller.





Advantages:

- The inflatable curtain insulates a cowshed, which reduces heat loss and eliminates the risk of buildings being frozen
- The InflaVent curtain allows to maintain positive temperature in a cowshed for continuous manure removal operations and watering of cattle
- The system is 100% safe (it lacks winding mechanisms, which can cause serious injuries).
- It provides excellent lighting inside a cowshed
- It provides a large input of fresh air
- It provides better comfort both for animals and employees
- Strong reinforced film helps to better resist the effect of ice and other environmental loads
- It offers reliable protection to animals from drafts
- The height of a single opening is up to 1.35 m, the height of a double opening is up to 2.5 m
- Wide plastic side boxes guarantee additional sealing of the window opening
- It is made of thick, reinforced plastic, UV-radiation protected and maintaining operational characteristics at temperatures as low as -25°C
- The system doesn't allow a cowshed to cool down even when power supply is disconnected (in such case emergency holding system needs to be activated)





Materials description:

1. **Inflatable membrane** – consists of three layers of frost-resistant, transparent reinforced film. Due to chlorine atom content, PVC-based fabric is less prone to light and thermal destruction and more resistant to heat, cold and light than polyethylene.

No	Characteristics	Results
1	Material	Polyester threads coated with two layers of PVC
2	Specific weight	310-340 g/m ²
3	Tensile strength	1000/1000N/ 50mm
4	Tearing strength	180/230N
5	Temperature mode	-25 °...+ 70°C
6	Light resistance	More than 6 points (very good)
7	Transparency	60%



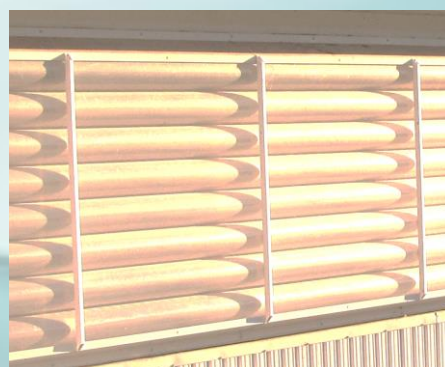
235mm

Three layers of the curtain form a multi-chamber structure, which seals the window opening. When inflated, the curtain's thermal-insulating properties are comparable to triple-pane window

2. **Wind protection** – a flat, plastic rectangular profile 20x40 mm serves as a guide for careful straightening of the membrane.



Double opening



Single opening



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3. Bird protection – UV-resistant polypropylene mesh 25x25 mm or 20x20. Roll height – up to 4 m.

4. Upper and lower metal piece – serves to fasten vertical rectangular wind protection pipes.



5. Blower unit – radial fan with electric motor 160 W, 220 V, 500 m³/hour.



6. Safe holding – during manufacturing, strong eyelets are installed into the upper part of the membrane. In winter with the help of those eyelets the membrane can be secured in full up position. In case of power cut, the curtain won't fall, but will remain hung up in upper position.



7. Controller – automatically switches the air blowers on and off, depending on the temperature. Includes touch screen display, automatic drying/anti-icing mode, humidity indicator, temperature and error log.