

EPA Products Ltd

T: +44 (0)1438 832281

F: +44 (0)1438 832162

E: info@epaproducts.co.uk

Claggy Road Kimpton Hertfordshire SG4 8QB United Kingdom

Smart MIN-VENT

accurately controlled air and humidity

Smart Min-Vent continuously monitors and calculates poultry shed cycle times and air inlet vents to accurately control air and humidity.



Correct ventilation of poultry shed conditions is a key area that can vary enormously when trying to control minimum ventilation.

Even with the most vigilant manager making multiple adjustments throughout the day there are still vast improvements that can be made to optimise shed conditions not only day to night but hour by hour.

Successful minimum ventilation systems are essential in providing the necessary environmental conditions for the physical and financial success of the poultry crop. While bringing in adequate levels of fresh air and removing excess moisture and carbon dioxide (CO_2) they also need to allow the shed to maintain temperature.

Introducing the Smart Min-Vent

The Smart Min-Vent is the perfect solution to your minimum ventilation system requirements. Created by EPA Products Ltd, the Smart Min-Vent continuously monitors and calculates cycle times and the opening of shed air inlet vents, to accurately control air and humidity without excessive heat loading.



"Poultry producers work hard to maximise efficiencies but there are still gains to be had."



Hours not Weeks

A farm manager will do their best to adjust the minimum ventilation of the poultry shed but will have other duties to complete elsewhere during the working day. Due to this the farm manager is unable to give the shed environment the full attention it requires.

In addition to this the farm manager will be off site at the end of the day. The adjustment they make to the system before they leave will have to suffice for 12 - 14 hours until they return the following day. Mistakes made when conditions are not optimal cannot be compensated for later in the flock.

Years ago we thought of management programmes in terms of days, or even weeks. That thought process is not sufficient for modern day broilers. Today we must think in terms of hours.

Our research has shown us there are over 30 million combinations of variables for the control of minimum ventilation.

Simple to set up, Simple to use

The Smart Min-Vent can be added to any negative pressure ventilation systems with powered air inlets. Once the unit is installed and the bespoke parameters are set for the poultry shed the Smart Min-Vent will take over.

The unit will manage the minimum ventilation, and above a set temperature the existing ventilation control system will take over.

No alterations are required throughout the crop. The operator simply sets the unit to day one for a new crop, freeing up time for the already busy farm manager.

Shed Drying Mode

Smart Min-Vent also includes a shed drying mode. At the push of a button the mode is activated which efficiently dries the shed without the need for extra heat.

3 Years of Research

There has been over three years of research and development of the Smart Min-Vent control.

As part of this research the system has been trialled in two broiled sheds, on an eight shed site for over a year to test the unit across changing seasons.

What the Manager at the trial site told us:

"I was sceptical at first, I didn't think the Smart Min-Vent could run the sheds as well as a person, but I was wrong. Now I even try to copy how it works in my other sheds - but I can't keep up with it!

The Smart Min-Vent is always connected to the shed so the conditions are much better than I can achieve.

I am definitely convinced this is the way forward for minimum ventilation."

The results showed far superior:

- Litter quality
- Air quality
- Bird behaviour
- Bird welfare



What the Experts Say

It's very important to avoid CO₂ accumulation during artificial brooding.

Poultry farmers think they are saving on heating costs by not opening the shed's air inlets for the first 24 hours of the chicks being introduced to the shed.

However CO₂ gas accumulates at the low ground level the chicks occupy and they are frequently found inactive, sleeping and therefore feeding poorly.

Fresh air is then brought in to the shed but without adequate speed to lift and expel the heavy CO_2 gas it becomes very difficult to remove from the poultry shed without the appropriate minimum ventilation system in place.

Information taken from the Poultry Industry Forum, 08/30/2017.

Benefits of the Smart Min-Vent

- Even distribution of fresh air within the poultry shed
- Eliminating cold draughts on to young chicks
- Provide a cooling air flow for more mature flocks
- Maintain an even ambient temperature within the poultry shed
- Provide sufficient oxygen for the livestock
- Remove the built up of harmful gasses within the poultry shed - Carbon Dioxide, CO₂ Ammonia, NH₃ and Sulphur Dioxide, SO₂
- Maintain litter quality wet litter will cause footpad dermatitis and increase the risk of coccidiosis.
- Dust levels should be below 1mg/sq m
- Ability to set humidity to your specific requirements
- Minute by minute data logging.

Requirements to install the Smart Min-Vent

• A negative pressure ventilation systems with powered air inlets.

Get in touch

We are always happy to answer any questions you have.

Call us on +44 (0)1438 832281 or email info@epaproducts.co.uk