



Pump intelligence, accuracy and connectivity optimises processes

How Grundfos' digital dosing in an agricultural setting will future proof your business. The equipment used to suppress pathogens in poultry agriculture has been given an upgrade, with Grundfos pumps at the heart of the improvements.

Some of the tools and methods employed in poultry agriculture are unchanged for decades. Modern advances are present throughout the industry but one key area has been lagging behind. To restrict the spread of pathogens and disease in hatching eggs and bird flocks, sanitising chemicals are often used. However, they may be inaccurately and manually applied which is inefficient and potentially hazardous.

Grundfos Area Sales Manager John Manwaring likens the use of agricultural sanitising chemicals measured and applied by

hand in large volumes to “using a sledgehammer to crack a walnut”. The industry was crying out for a way of administering essential sanitiser in managed volumes that was more efficient, more cost effective and most importantly, safe, compliant and future-proof. Potential exposure to workers, outdated controls, excessive use of chemicals, regulatory compliance and damage to the environment were other factors that meant a fresh approach was needed.

GRUNDFOS 

Possibility in every drop

The Grundfos solution:

A digital dosing pump that injects a precise amount of sanitiser droplets into the hatchery... enough to kill bugs threatening chick health but not enough to harm the chicks.

We joined forces with our customer Sonas to create a new precision automated chemical dosing system capable of supplying a smaller but more exact concentration and dose of the chemical into the atmosphere.

Compliant with all regulatory bodies, it can be administered and monitored remotely as it links to a connected screen for visual operation from a location elsewhere on the farm, meaning workers no longer need to handle any chemicals during operation.

Background

More than 200 digital dosing pumps are already operating in some of the most prominent agricultural facilities in the UK.

The Digital Dosing Advanced (DDA) 7.5-16 FCM is the FCM version of our small digital dosing pump and comes with an integrated screen for easy visual operation and the benefits of inbuilt over pressure, dry run and pipe burst protection.

As a result, customers are reporting a dramatic reduction in downtime caused by wet component materials such as seals in the specialist equipment, which complies fully with UK Biocidal Product Regulations.

An intuitive graphical user interface gives easy access to a wide range of highly advanced functions and features – a powerful variable-speed stepper motor and turn-down ratio of up to 1:3000 means the pump ensures smooth, continuous and ultra-precise dosing in any chemical treatment application.

Additionally FlowControl can detect any issues in the DDA dosing pump such as overpressure, line bursts and air bubbles in the dosing head and suction-side cavitation, meaning less downtime and lost revenue.

A built-in timer means your team can set up batch dosing either as a simple repeating cycle or for up to 16 procedures over the course of a week.

Product info



97722018
DDA 7.5-16 FCM

This is the FCM version of our small digital dosing pump. The pump comes with an integrated screen for easy visual operation and the benefits of inbuilt over pressure, dry run and pipe burst protection.



99171932
E-box 500, Ethernet DDA

The E-box connects the pump to the BMS system within his cabinet and externally if needed. The pumps can be operated then from a remote location and all in one place. The need to go to the pump is then eradicated which helps with ongoing maintenance costs and health and safety clearance.

“The industry was crying out for a way of administering essential sanitiser in low but managed volumes that was more efficient, more cost effective and most importantly, safer.

Health and safety is the number one priority, but farmers also need to know they are disinfecting wisely, reducing maintenance costs and creating a healthy environment for their poultry and in turn their customers.

If you consume poultry or eggs from a UK source, it is very likely to have been protected by Sonas product and Grundfos pumps”

John Manwaring

Area Sales Manager
Grundfos

Overview

- Automated chemical dosing
- Exact dosage
- Animal safe concentration safeguards
- Avoidance of workforce exposure
- Customer and regulator compliant solution

The outcome

- Decrease in reliance on the application of antibiotics in the food-chain through continued use of sanitising chemicals
- Drop in animal mortality rates due to accurate dosing
- Protected and increased production profit by optimising pathogen protection for customers.

The benefits

Instant reductions in pathogen levels, down to as low as zero detection.

Healthier birds and a more profitable product, with the system providing positive ‘growth against standard’ in all areas.

Enhanced return on investment within the first year of operation.

29%

The average drop in mortality rate in a trial of 11.2 million birds.

16 weeks

Installed inside 16 weeks from receipt of order date if site size, layout and necessity to work around production schedules allows.

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