

De Schothorst: Grundfos DME dosing pumps improve standard of poultry research

In the Western European livestock industry, controlling environmental pollution in the form of N and P emissions and ammonia emission is a key issue. The quality of animal products is also a subject of utmost importance. Schothorst Feed Research B.V. ('De Schothorst') is a leading Dutch research institute for animal nutrition, which deals with these issues.

The livestock feeding know-how exchanged among De Schothorst's international network often leads to joint research projects. This exchange of know-how and information makes it possible for De Schothorst to harmonise the quality of animal feeds of the international feed industry with the customers' requirements.

The Situation

Recently De Schothorst invested in a new poultry house with a capacity of some 32,000 birds. This facility provides the opportunity to carry out research under conditions that correspond to a real-life situation. The large number of birds necessitates a far-reaching form of automation. For instance, an automatic weighing system constantly weighs the birds. The system also incorporates an advanced feeding machine, which can feed from 12 separate silos. This unique combination of systems makes it possible to carry out detailed research.

In addition to the feeding and weighing systems, the poultry house has a specially developed drinking water system, which records the water intake per thousand birds. Like the feeding and weighing systems the drinking water system is linked directly to De Schothorst's data network, which collects all the data

TOPIC:

De Schothorst: Grundfos DME dosing pumps improve standard of poultry research

LOCATION:

Netherlands

COMPANY:

Schothorst Feed Research

centrally. The drinking water system is equipped with a dosing unit that enables the addition of different preparations like for instance, vitamin mixtures to the water.

The Grundfos Solution

After an extensive and convincing round of tests, Grundfos DME 12-6 dosing pumps with integrated Profibus modules were selected for the application. 32 dosing pumps provide the birds with the necessary, precisely dosed supplements. A monitoring system sends a signal to the DME dosing pump, which subsequently automatically adds the exact amount of vitamins needed. Via the Profibus, the DME dosing pump continuously informs the PC system about service hours, number of pump strokes, quantity pumped, alarm/operation status, calibration results, local or external operation, etc.

The poultry house is divided into 32 sections each holding 1,000 chickens. As a result of the local PC and Profibus communication system it is possible to add the exact amount of supplements to the chickens' drinking water. As the DME pump doses virtually without pulsation, a very homogenous and stable mixture of supplements and drinking water is obtained.

The Outcome

By choosing the Grundfos DME dosing pumps with Profibus, De Schothorst achieved a high level of automation for their feeding system with extremely precise dosing of the required feed additives.

The combination of the unique step-motor technology (the heart of the Grundfos DME dosing pump), Profibus communication, and dosing precision made the decision to choose Grundfos dosing pumps easy. According to De Schothorst, there's no question about it; Grundfos has supplied a unique dosing solution for a unique installation.