

Improved Safety in Case of Failure in Ventilation System

Ventilation failure is the most critical factor in relation to poultry production. SKOV has optimised the possibilities of emergency opening in case of ventilation failure in connection with Combi-Tunnel ventilation.

Ventilation failure is the most critical factor in modern livestock houses and it requires immediate action. The oxygen content of the air is reduced; air humidity increases and the birds cannot get rid of their excess heat. A fast and efficient response is required. With a SKOV emergency ventilation system, the well-being of the birds is ensured and a production loss can be reduced or even completely avoided.

SKOV has developed a new DA 75A 24V Rack & Pinion motor for application in connection with the open/close function of doors in the tunnel opening. DA 75A is a series of very sturdy and reliable winch motors specially designed for regulation of inlets, flaps and now also tunnel openings in the ventilation systems. The design of the motors is compact, with all functions gathered in a single cabinet. The design of the winch motor makes it easy-to-clean and maintenance-free.

In connection with Combi-Tunnel ventilation, it has up till now only been possible to make emergency opening through wall inlets which are characterized by a smaller opening area. By means of the newly designed DA 75A Rack & Pinion motor, it is now possible to make emergency opening of the tunnel opening which typically is 25-30 metres long. This provides a much higher rate of airflow and much better emergency ventilation.

Power for activating the emergency opening is coming from DOL 278 emergency opening. Together, DOL 339 climate computer and DOL 278 ON/OFF form an emergency opening system for opening the ventilation system in case of a power or technical failure. The emergency opening system is integrated in the climate computer; however, the power for opening the ventilation system is supplied by DOL 278. In case of power failure, the tunnel doors and wall inlets are forced open completely. DOL 278 has just been launched in a large version so it can supply power equivalent to four winch motors. This ensures the opening of both wall inlets and tunnel openings.

The emergency opening is also available as a temperature-dependent variant, if the production site is located in areas where it is not suitable to open the ventilation system completely due to low temperatures at night or at certain times of the year.

Together, DOL 339 climate computer and DOL 278 temperature-controlled emergency opening form an independent emergency opening system for opening the ventilation system in case of a power or technical failure or an operational error. The emergency opening system is integrated in DOL 278 and is activated when the house temperature exceeds the set temperature of DOL 278. The opening depends on how much the temperature is exceeded and is activated gradually. DOL 278 has a separate temperature sensor and therefore does not depend on climate computer measurements.

Furthermore, the opening can be made dependent on the outside temperature, because the temperature-controlled variant of DOL 278 also has an outside temperature sensor. I.e. the outdoor temperature sensor overrides/postpones the emergency opening function if it is hot outside. Also this variant of DOL 278 has just been launched in a large variant which is particularly well suited for Combi-Tunnel ventilation.