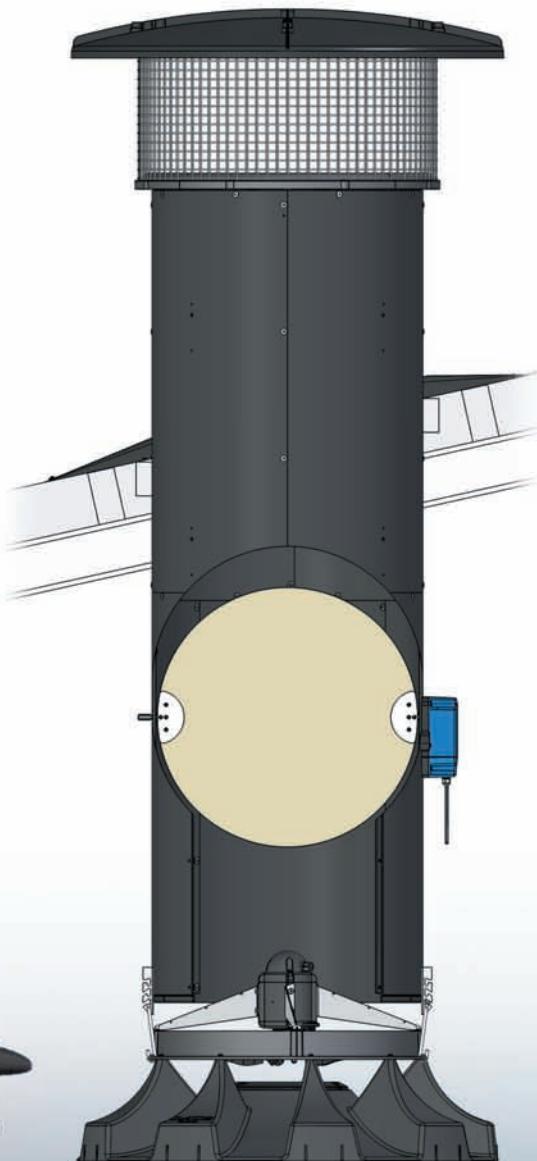


# Ventilation

*The idea behind our climate systems is efficiency and advanced simplicity.*



# Corona Inlet Fan



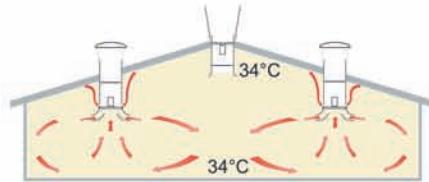
## TECHNICAL SPECIFICATIONS

Motor 3x230V / 3x400 V	1.6 A / 0.95 A
Shaft output power	0.3 kW
Volume flow	12000 m <sup>3</sup> /h @ 0 Pa
Chimney diameter	760 / 740 mm
Damper	Turning
Materials	ABS / stainless steel

## Corona – an active roof mounted air inlet

The Corona is an active fan assisted air distribution unit. The active distribution of preheated, oxygen rich air ensures a supreme climate in the house from day one to finish, no matter the outside conditions. By providing ideal airspeed and plenty of oxygen at floor level, the systems support the animals' metabolism and growth.

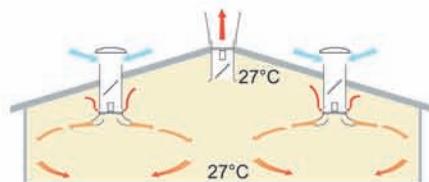
Tests have shown that by utilizing the warm air in the roof space the Corona typically returns 10kW of heat for each 1kW of electricity used and cuts the overall heat consumption by as much as 50%



## Destratification

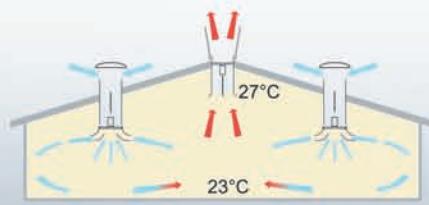
At low ventilation rates, when it is very cold outside and/or when the animals are small, the Corona preheats the air by mixing small portions of cold incoming air with warm room air, before distributing the air evenly throughout the house.

Heat recovery – Dry bedding – No Draught



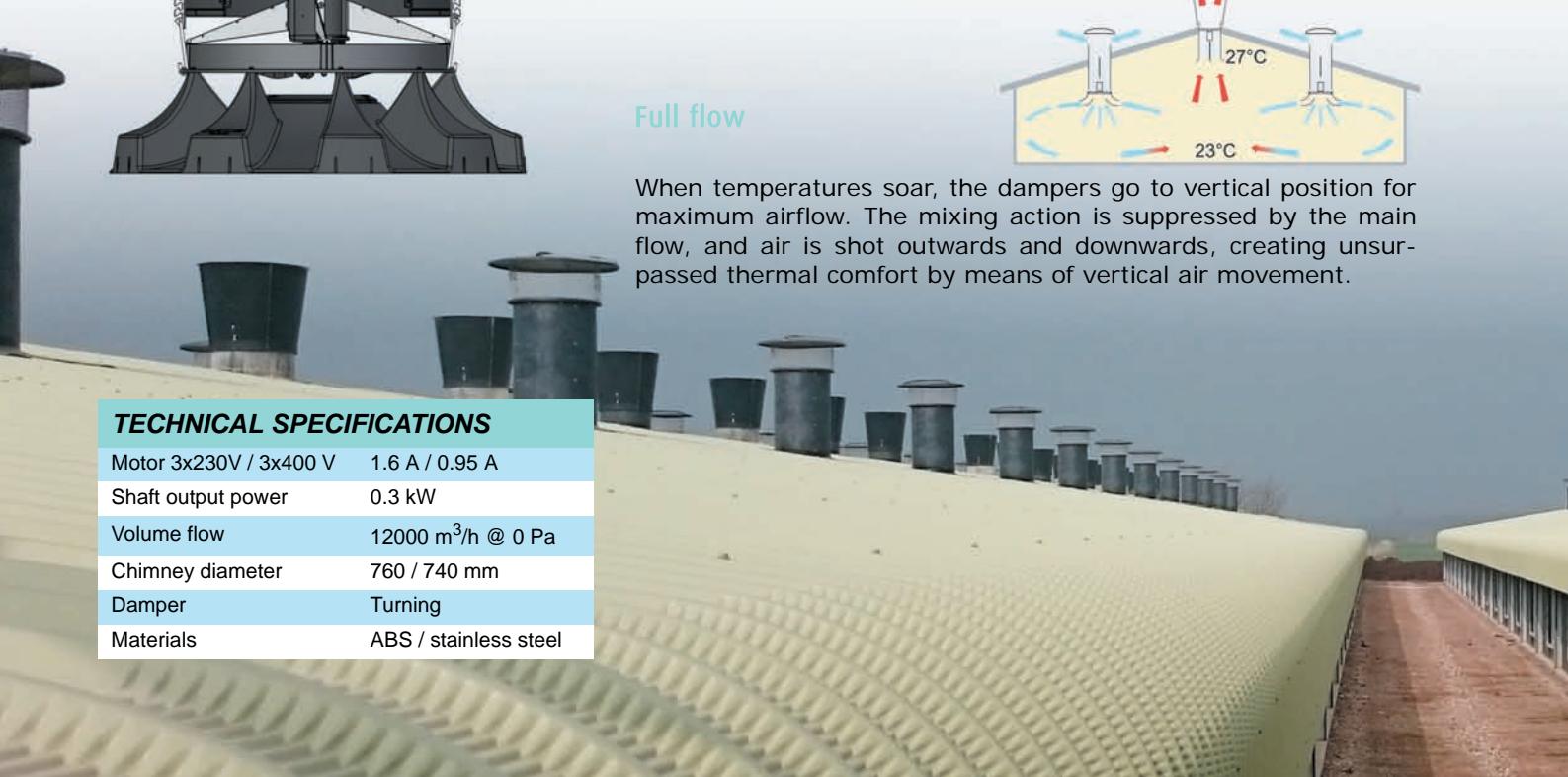
## Mixing

The Corona works with partially opened dampers and mixes an increasingly larger portion of incoming, cool air with warm room air, maintaining ideal climate conditions in the house.



## Full flow

When temperatures soar, the dampers go to vertical position for maximum airflow. The mixing action is suppressed by the main flow, and air is shot outwards and downwards, creating unsurpassed thermal comfort by means of vertical air movement.





## Market-leading roof mounted exhaust fan

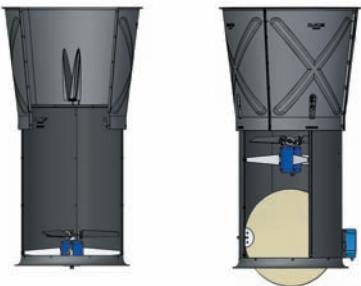
The HE740 is the most efficient roof mounted exhaust fan on the market. The advanced aerodynamics ensure high air exchange rates at very low energy consumption.

## Trouble-free performance

The advanced chimney design with its expanded core ABS provides good insulation values and serves as a sturdy mounting base which does not flex or expand when exposed to extreme temperatures. The totally corrosion-free unit provides years of trouble-free, efficient operation.

## 30% lower energy consumption

In a direct comparison against leading suppliers, the HE740 exhaust unit offers at least 30% lower energy consumption at equivalent flow rates.



## Butterfly damper

The HE740 exhaust with butterfly damper completely seals off from rain, birds, insects, rodents and light when not in operation. This unit is for on/off control.

## Turning baffle

The HE740 with turning baffle is for speed control (0-10 Volt) via a frequency inverter, or via on/off signal.



### TECHNICAL SPECIFICATIONS

Motor 3x230V / 3x400 V	1.6 A / 0.95 A
Shaft output power	0.3 kW
Volume flow	17471 m <sup>3</sup> /h @ 0 Pa
Specific consumption	25.5W / 1000m <sup>3</sup> /h
Fan RPM	945-960 @ 50 Hz
Materials	ABS / stainless steel



More about DACS ventilation on

vimeo



## MagFan takes you further for less

MagFan offers an unprecedented combination of high capacity, high pressure and extreme efficiency.

Wherever energy is a limited resource and high capacity, high flow rates and high pressures is needed, MagFan is the answer.

The unit is totally corrosion resistant and requires no maintenance, and the estimated service life of the product is in excess of 100000 hours.

## ... and returns your investment

The combination of high quality materials, extreme efficiency, unrivalled performance and simplified installation results in a very attractive Return On Investment (ROI) of typically one, maximum two years.

## The world's most energy efficient wall fan

In a direct comparison against leading suppliers, MagFan offers at least 70% lower energy consumption at equivalent flow rates.

## Variable Speed Drive

Your MagFan starts slowly and quietly and accelerates to the requested speed. With its precise airflow control, MagFan can be used even during brooding. As the need for more fresh air increases, the fan simply accelerates smoothly and effortlessly, always matching the airflow and pressure requirements. MagFan has an unrivalled, wide duty point, ranging from neutral to 100 Pa (0.40"). Even at very high tunnel ventilation air speeds, the fan operates at low loads and has an abundance of spare capacity.

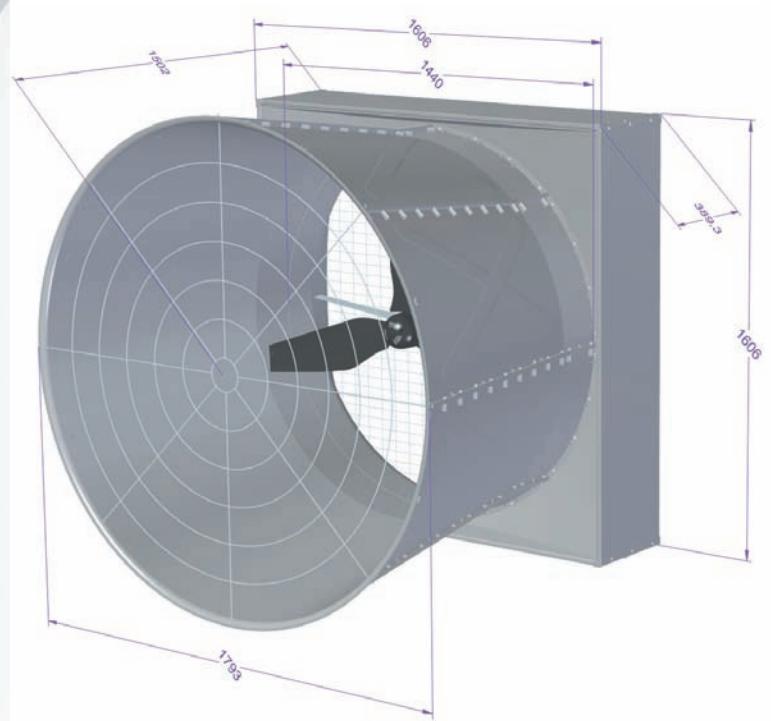
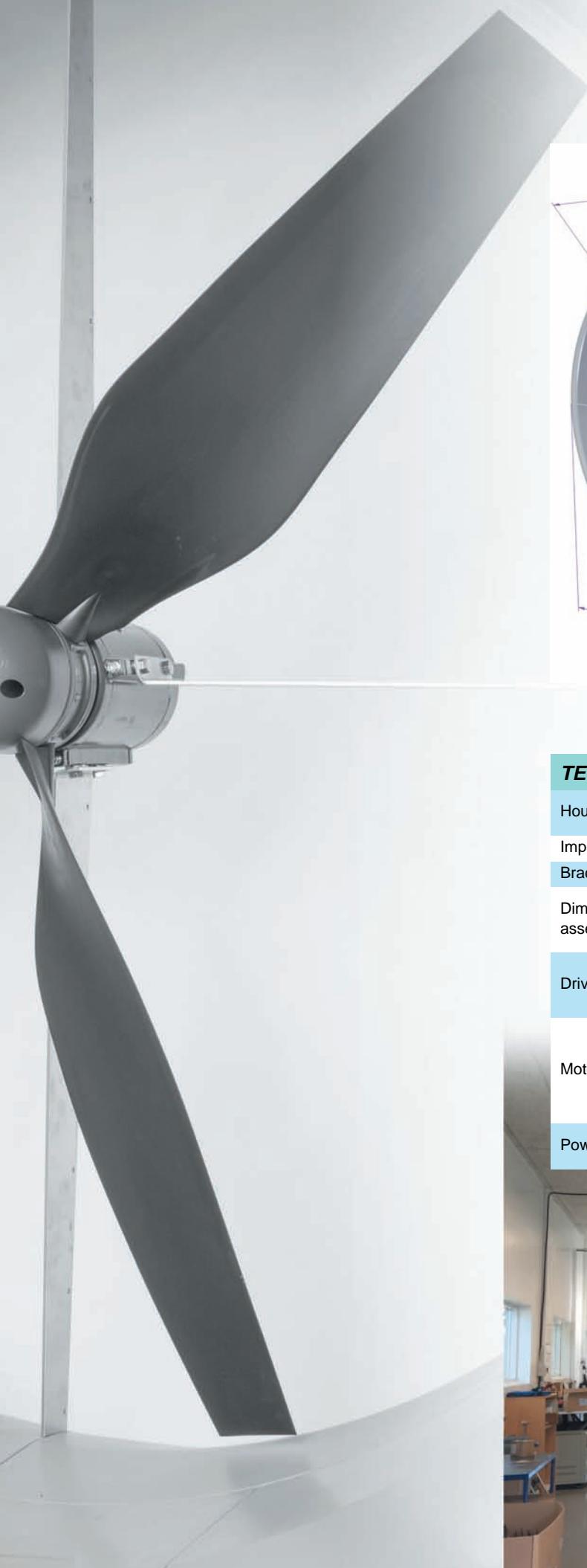
## Flexibility by design

MagFan comes with a simple to use plug-and-run Variable Speed Drive which facilitates installation and makes MagFan capable of running on 95% of the world's electric grid without having to even think of supply voltage, frequency or voltage drops.

## MagFan in short:

- **Plug-and-run**
- **Built to last, maintenance-free**
- **Calculated service life 100000+ hrs**
- **Capacity up to 80000 m<sup>3</sup>/h (47000 cfm)**
- **Runs on 95% of the world's power grid**
- **Runs on any voltage from 85VAC to 265VAC**
- **Reduces CO<sub>2</sub> emissions by at least two thirds**
- **Reduces your energy bill by 70% compared to top ten competitors**
- **Saves 75% on transport costs**
- **Soft start and acceleration**





#### TECHNICAL SPECIFICATIONS

Housing and cone	PP-HD, gray (RAL 7040) PVC, gray (RAL 7040)
Impeller blades	Celstran Technofiber
Brackets, guards:	Stainless steel / AISI 304 / A2
Dimensions assembled	Weight: 90kg / 200lbs L x W x D (mm): See drawing Impeller diameter: 1430mm / 56.5"
Drive	Water proof speed drive $\cos(\phi)$ / power factor at full load: 0.99 In-built drive and motor protection
Motor	Permanent Magnet Synchronous 3-phase Output (continuous duty): 1.2kW @ 660RPM / 2.2kW @ 750RPM Insulation class F, 170°C magnets In-built double Klixon thermal protection
Power supply	Single phase, 100-265VAC, 50/60Hz Three phase, 360-440VAC, 50/60Hz



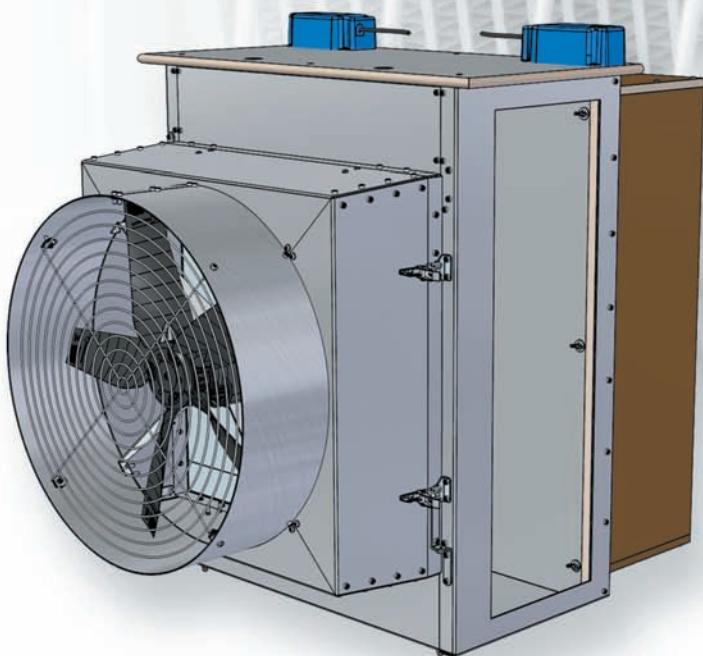
More about MagFan on



vimeo



# AddAir Heat Exchanger



AddAir is a versatile and highly efficient heat exchanger, combining the simplicity of traditional heating systems with the efficient humidity control of heat exchangers – but at a fraction of the initial cost, with much longer service life, and significantly lower running costs.

AddAir quite simply is a game changer for the entire poultry industry due to its supreme dehumidification capability.

## AddAir has the following advantages:

- Better distribution of the air in the house
- Better litter condition
- Better integration with ventilation
- Significantly lower power consumption
- Significant saving in heating costs
- No cleaning and maintenance during production
- Open construction – easy to clean
- Much lower initial costs and running costs



## TECHNICAL SPECIFICATIONS

Heat capacity	60kW at -10 Pa and 30°C ambient, calculated at nominal fluid flow Calculate heat output using the following formula: $(T_{\text{fluid inlet}} - T_{\text{cooling air inlet}}) \times 1.2\text{kW}$ Example: $(80-30) \times 1.2 \text{ kW} = 60 \text{ kW}$
Air exchange capacity	8000 m <sup>3</sup> /h at -10 Pa
Fluid supply requirement	Nominal: 50 l/min per unit, 80°C at inlet Long Life Antifreeze suitable for aluminium must be added (25-60% concentration depending on climate conditions – consult installer)
Fluid temperature drop	Approximately 20°C at nominal flow and 30°C ambient air
Fan motor	3x400VAC 6-pole (950 RPM) 0.3kW IP55 Insulation Class F



# Production & Management



# Production management

## REGISTRATION

This section displays various registration and monitoring dashboards:

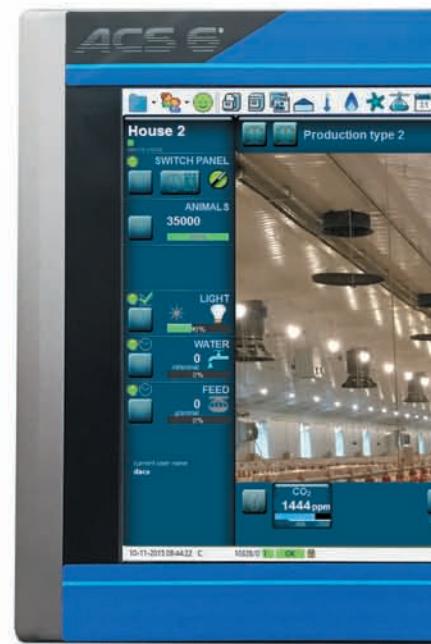
- PRODUCTION MANAGEMENT:** Shows a summary of production activities.
- SILO REGISTRATIONS:** Displays data for silos A1 through A4.
- ANIMALS:** Shows animal counts and details for House 1.
- BIRD SCALE:** Monitors bird scale data for House 1.

**ACSnet**  
AGRICULTURE

## FEED

This section includes:

- MIXING PROGRAM:** Shows mixing profiles for food delivery.
- RATION 2 PROGRAM:** Details the ration program for House 2.
- WATER:** Shows water consumption graphs and a live video feed of chickens.
- GRAPH FEED AND WATER CONSUMPTION:** A line graph comparing feed and water consumption over time.



Production  
management

## EGGS

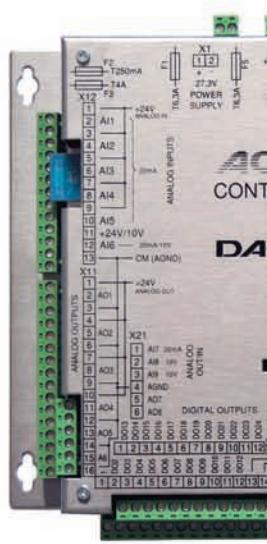
This section includes:

- EGG TRACKING:** Monitors egg production and tracking.
- LVS PROGRAM:** Shows light programs and egg quality analysis.

## LIGHT

This section includes:

- LIGHT PROGRAM:** Shows current and previous light programs.
- LVS PROGRAM:** Shows light vs. egg quality analysis.



# Climate control

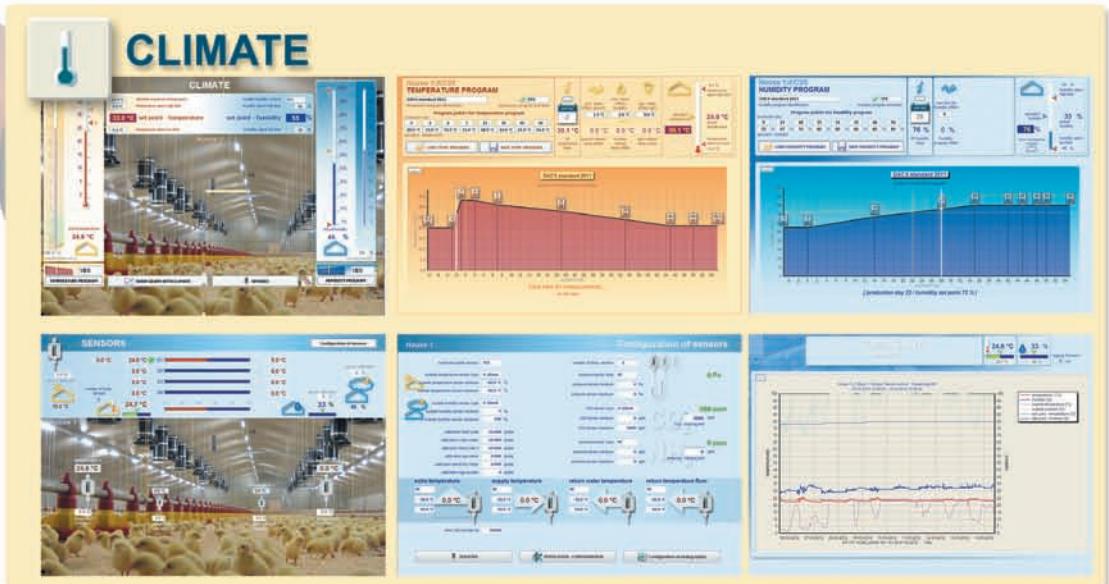


**FARM REVIEW**

touch 15

DACS

Climate control



**CLIMATE**

**VENTILATION**



**AC5**



**VENTILATION**

## Panels

- Simplified installation
  - Increased level of electrical safety
  - Full technical documentation with each panel
  - Designed and tested according to European standards
  - No panels leave our workshop without thorough testing



DACS

# DACS ventilation system lay-out



DACS design ventilation systems for all climate zones. From the very cold polar climate zones over temperate climate zones and into the subtropical and tropical regions. We deliver energy efficient, high performing systems designed to maximize yield and animal welfare, at a fraction of the normal running costs and carbon emissions.

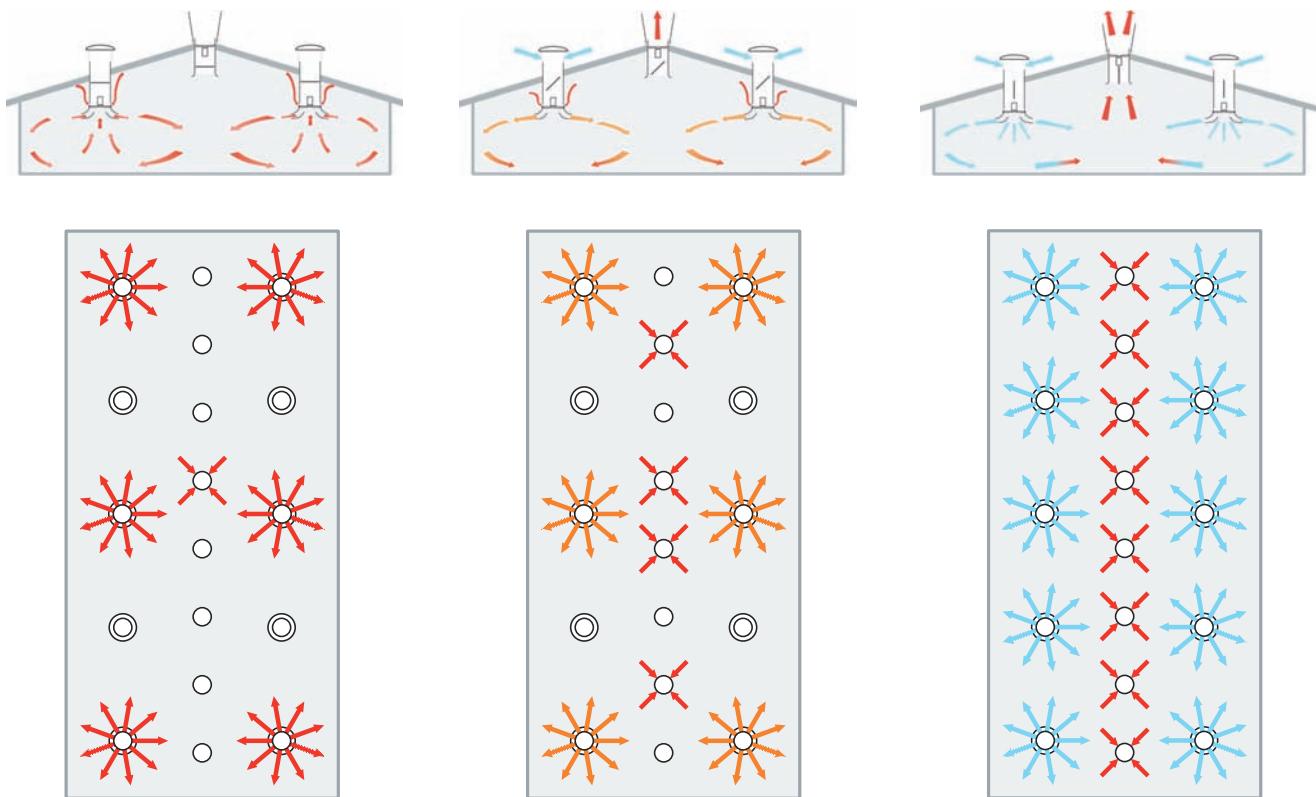


# ActiveBalance



The ActiveBalance system is particularly suitable for the cold and temperate climate zones. A high degree of controlled air distribution is needed in these regions because the difference between outside and inside temperatures can be significant.

These houses are equipped with Corona inlets and HE740 exhaust units.

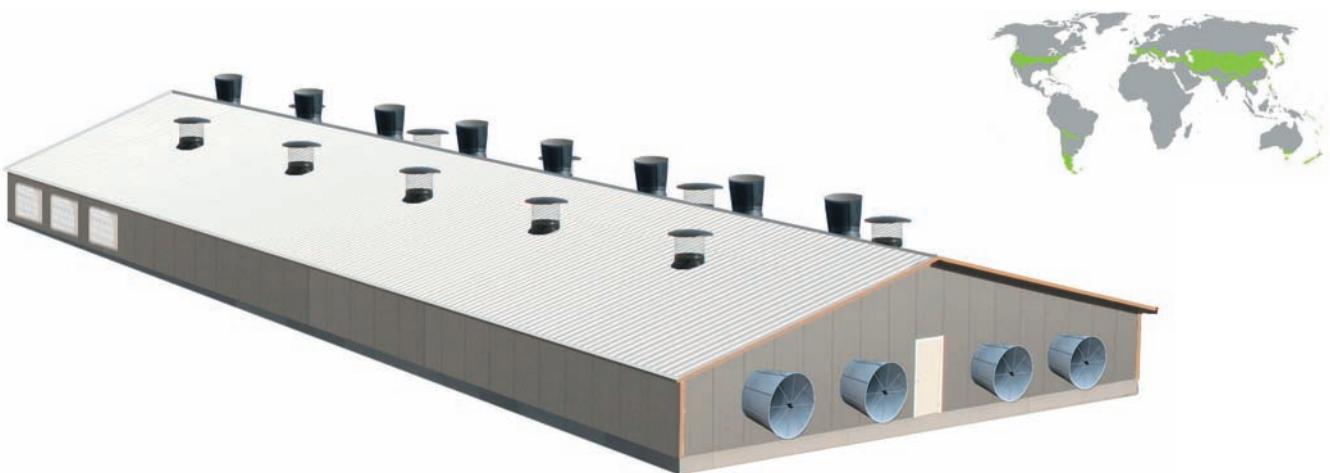


In brooding only a few Corona inlets and a few HE740 exhausts will be in operation to create a minor air exchange and a flow of warm air in the house.

Later in the production, as higher air exchange is needed more air enters through the Corona inlets and more exhausts are in operation.

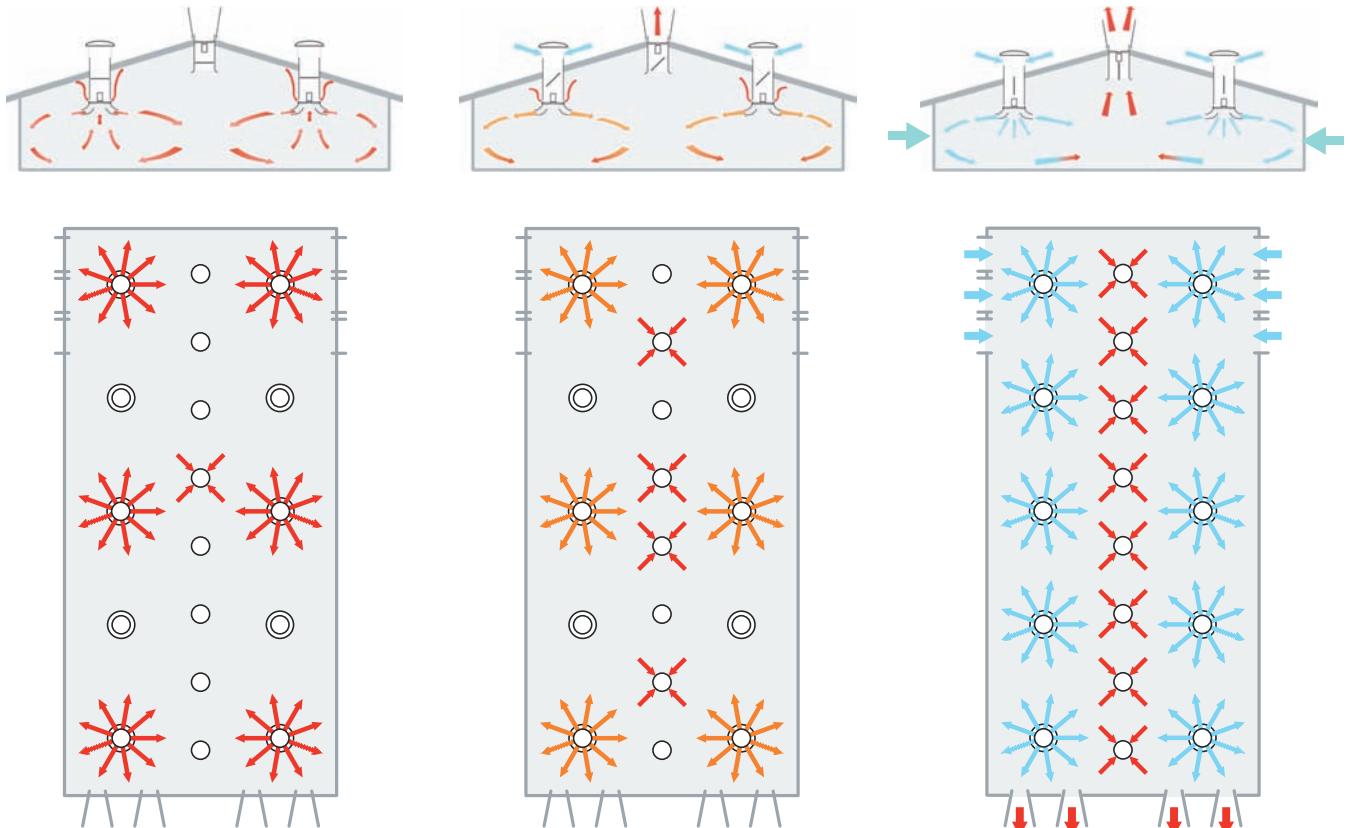
In the warm period with full grown animals all Corona inlets and all HE740 exhausts will be in operation to create maximum air exchange and air speed.

# ActiveBalancePlus



The ActiveBalancePlus system is designed for the warmer parts of the temperate climate zones and the cooler subtropical climates.

These houses are equipped with Corona inlets, HE740 exhaust units, shutters and MagFans.



In brooding only a few Corona inlets and a few HE740 exhausts will be in operation to create a minor air exchange and a flow of warm air in the house.

Later in the production, as higher air exchange is needed more air enters through the Corona inlets and more exhausts are in operation.

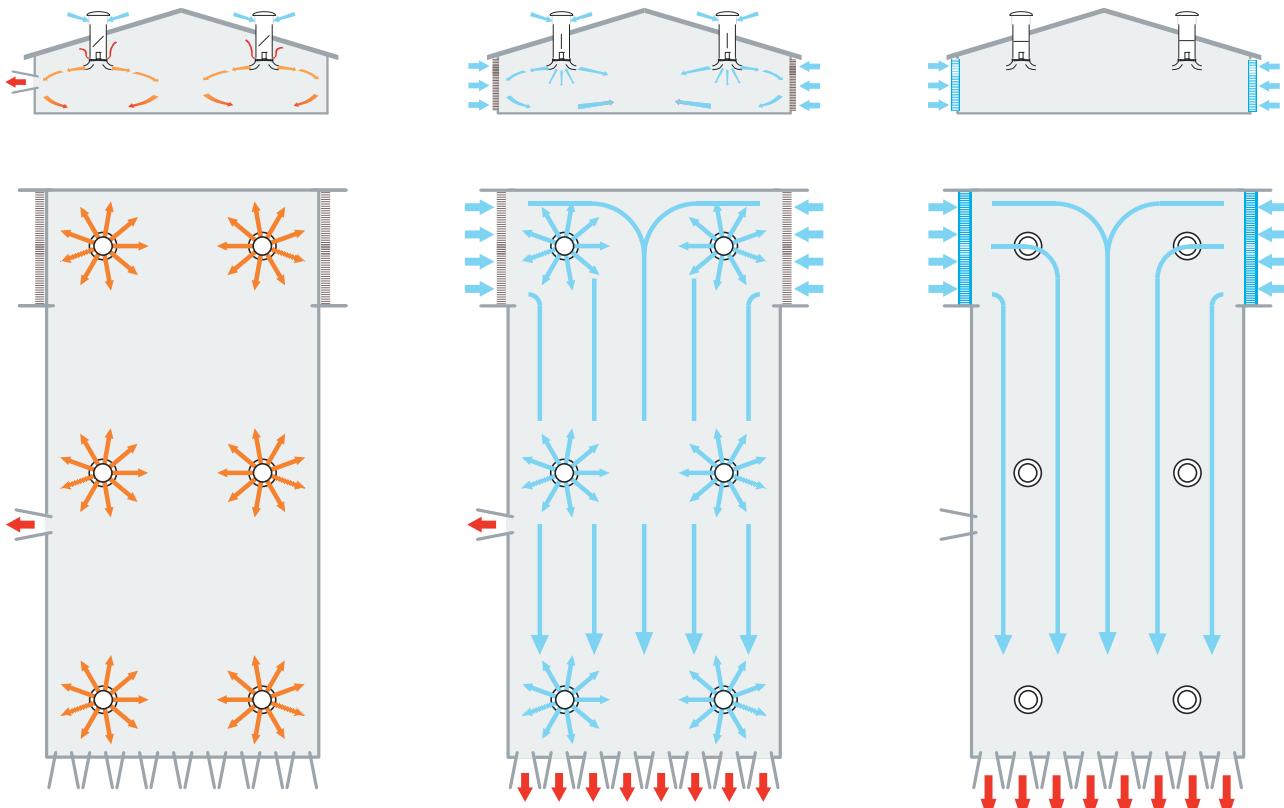
In the warm period with full grown animals all Corona inlets and all HE740 exhausts, in conjunction with shutters and MagFans, will be in operation to create maximum air exchange rates and air speed.

# ActiveProgressiveTunnel



The ActiveProgressiveTunnel system is designed for the warmer parts of the subtropical zones and into the cooler tropical climates.

These houses are equipped with Corona inlets, cooling system, tunnel doors and MagFans.

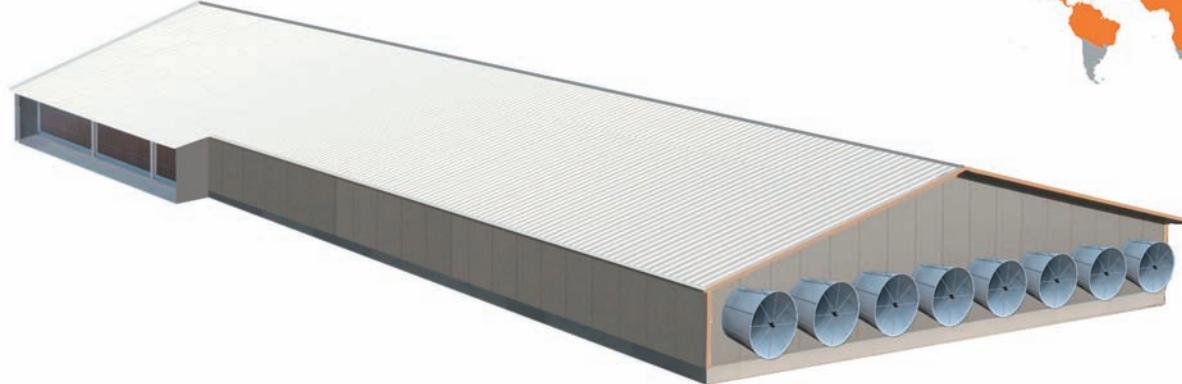


In brooding and during cooler periods all Corona inlets will be in operation to create a constant flow of air and a precise air exchange.

The MagFans gradually accelerate and air enters partly through tunnel doors while the Coronas stay in operation.

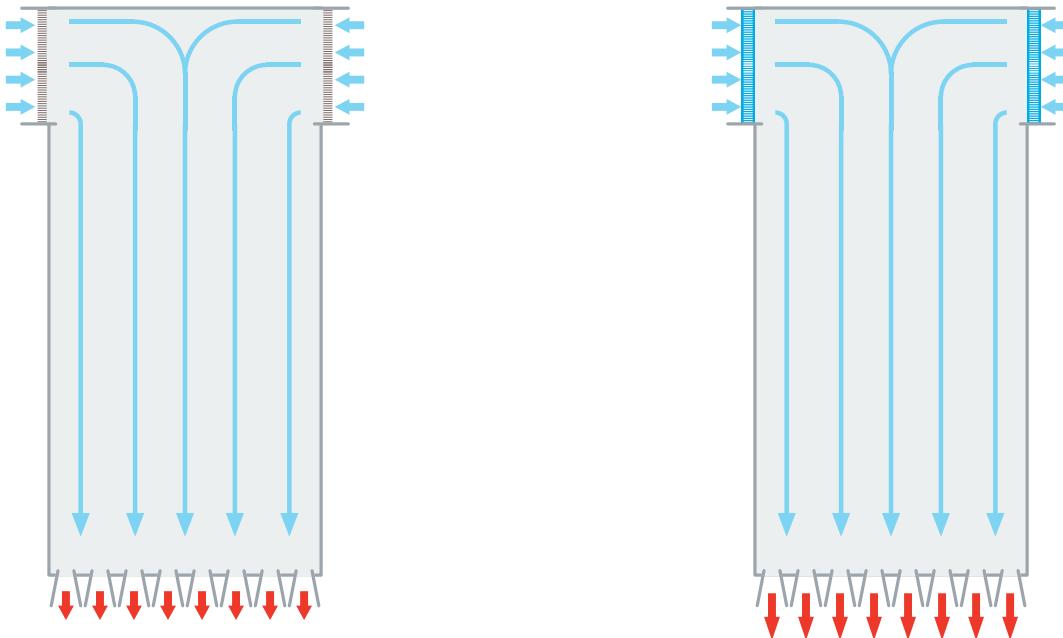
MagFans create high air speed and air exchange in tunnel mode. Coronas shut down. Cooling is active.

# ProgressiveTunnel



The ProgressiveTunnel system is ideal for the warm and humid tropical climates. Tunnel doors and cooling systems work in conjunction with the MagFans to provide cooling.

The system operates at a fraction of the operating expenses normally associated with tunnel ventilation.



In brooding, MagFans will operate at low speed to create uniform air exchange and airspeed. The MagFans adjust their running speed very precisely, eliminating the hassling, noisy and inefficient stage control.

During hot spells, MagFans accelerate to create high efficiency cooling. Cooling is active. Very high air exchange and superior energy efficiency.



## Innovative solutions for livestock production

DACS is a family-owned company with more than 30 years experience in developing, producing and servicing ventilation and control systems for livestock production.

We have used our comprehensive knowledge on both livestock production and ventilation in the development of among others our award winning wall fan, MagFan.

Our ventilation system is simply the most energy efficient system you can get on the market.

We run tests in our own wind tunnel, and we develop our products in close cooperation with farmers and the best researchers in the field.

Our overall focus is on optimum animal welfare and on maximum energy efficiency.

DACS brings you:

- **Energy efficient ventilation systems**
- **Total production and climate control**
- **Improved animal welfare**



DACS a/s on Vimeo



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