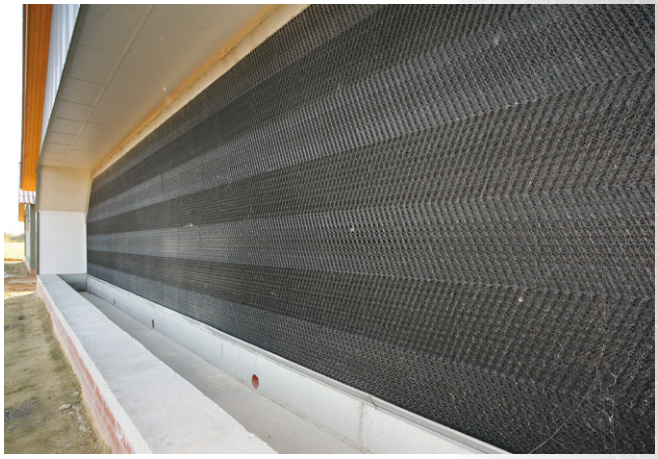
Applications

Components for Agricultural Engineering





Chemical exhaust or biological exhaust

Exhaust air cleansing

Increasingly more stringent environmental requirements and constant growth in competition call for innovative solutions. In order to be better able to face this challenge, GEA 2H Water Technologies, in cooperation with plant engineers, farmers, research institutes and public authorities, has developed an innovative product program for agricultural engineering.

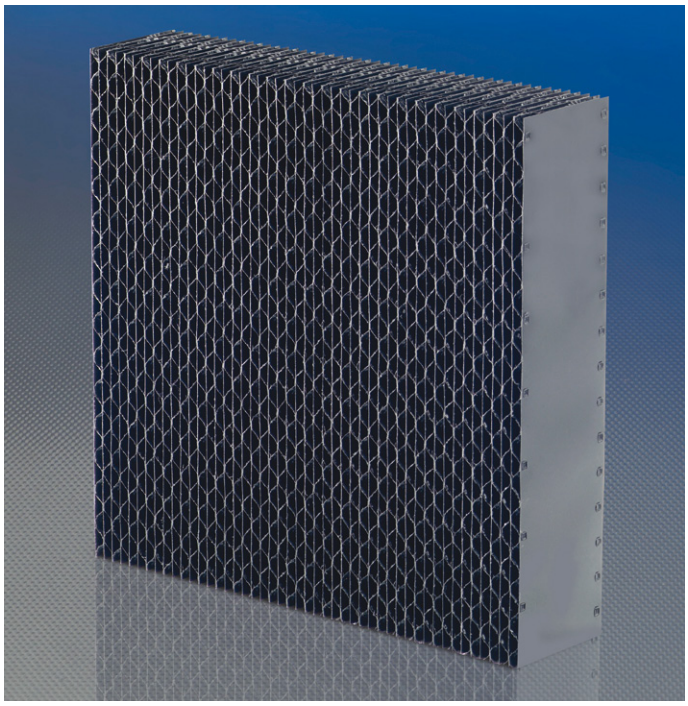
The substances to be cleaned out of the exhaust air are dust and ammonia. Purification performances of 70 % - 90 % are prescribed depending on the location of the animal shed.

In order to be able to fulfil these requirements efficiently and economically, packing materials are required that can be used in both reverse-flow and cross-flow applications (e.g. tunnel ventilation) in decentralised exhaust air cleansing systems.

The packing materials designed and developed by GEA 2H Water Technologies fulfil all requirements and have already proven their performance capabilities in hundreds of systems.

Differing plant concepts, such as chemical exhaust cleansing in cross-flow systems or biological exhaust cleansing in counter-flow systems, require the ideal packing materials for the respective application.

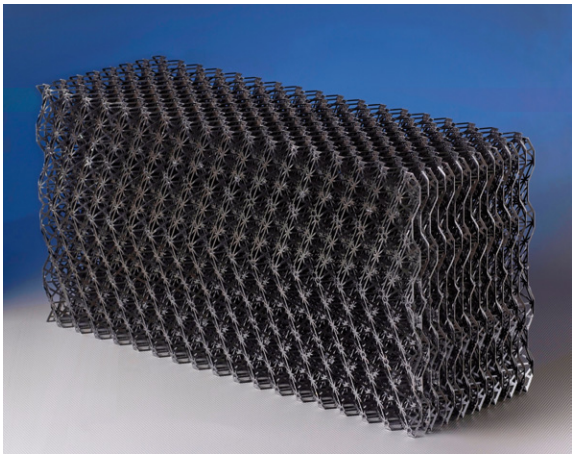
By working in close co-operation with our customers, we are able to offer the most suitable packing materials for any system concept. We would be pleased to assist you in finding the right packing materials for the specific job.





Your GEA 2H-Benefits

- Effective and economical exhaust air cleansing
- Compliance with stringent environmental requirements
- Expert Service



Advantages of GEA 2H filling materials

- high stability
- long service life
- low pressure loss
- easy to clean
- high clogging resistance
- highly efficient in substance transition range

Manifold requirements

Air humidifying and cooling

In order to ensure a high level of productivity in animal breeding, it becomes more and more important to react to the specific requirements of the respective type of animal.

This also includes controlling the air temperature within the animal shed. The air in the animal shed has to be cooled in particular in regions where there is a high outside temperature. In this case, a synthetically generated air flow is moistened and cooled by means of evaporative coolers.

For this purpose, GEA 2H Water Technologies has designed and developed a new type of cooling fill made of plastic:
2H HUMIPACKING®.

2H HUMIPACKING® offers a distinct advantage in comparison to standard products – polypropylene!

2H HUMIPACKING® is made of polypropylene and is therefore easy to clean, resistant to most chemicals, low in pressure loss and does not let in the light.

A particular feature is its long service life in comparison to other established products on the market – giving it a definite economic advantage.

Typical application areas for 2H HUMIPACKING® are cooling of poultry and pig farms but also cooling of greenhouses.





Chicken farm, Australia

Advantages of
2H HUMIPACKING®

- large cooling capacity
- easy to clean
- resistant to acids
- low pressure loss
- constant cooling capacity over complete service life if serviced correctly
- protection against light
- UV-resistant
- long service life



Special accessories

Blackout blinds (Lighttrap)

In the case of animal breeding, it is often necessary to ensure that no light gets into the animal shed from outside. This makes it possible to use special day and night rhythms or synthetic lighting.

To do so, blackout blinds (Light trap) are mounted in front of the air inlet flaps or fans. GEA 2H Water Technologies has developed the special Profile TAP 160 and corresponding brackets for this purpose.





Advantages of 2H-Profil TAP 160

- very rugged
- low loss of pressure
- easy to clean
- high dirt resistance
- flexible dimensions

Leading competence

Worldwide presence

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GEA Heat Exchangers

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