



# Big Dutchman®



## **HydroAir**

Accurate and hygienic liquid feeding system  
for piglet rearing

# HydroAir – piglet liquid feeding system for high demands

**HydroAir** is a liquid feeding system which has been developed by Big Dutchman for piglet rearing. It can be used for piglets with weights from 6 to 40 kg, but can also be used for feeding of sows.

HydroAir is equally well suited for small and large operations – from 500 to 4500

piglets.

It can be used for the preparation of feed mixes from up to 40 different components thus providing flexibility in the use of low-cost ingredients. The feed can be prepared per valve (minimum quantity is 8 litres if a 180 litre tank is used) and, if the same feed

mix is used, simultaneously for several valves, which saves a lot of time.

Thanks to the compact design of the system, HydroAir may be installed in very small feed kitchens without problems.

## HydroAir with sensor trough

Sensor feeding systems are becoming more and more important in piglet rearing. Such systems make it possible to supply small and fresh portions several times a day.

Every piglet should have approximately 8 cm of feeding space. This corresponds to an animal:feeding place ratio of 1:1 at the beginning and a ratio of 2:1 at the end of the rearing period. Such conditions make for uniform feed consumption in the group with individual weight gains of 450 g per day and more.

As HydroAir allows for preparation and distribution of very small feed quantities, it is ideally suited for a repeated supply of fresh feed several times per day. The feed mix can be adjusted accurately to the piglets' nutrient requirements which makes it possible to supply a warm feed soup as well as providing a gradual change of the feed mix (phase feeding).



HydroAir in combination with sensor feeding

Feed consumption, especially in the first couple of days, is much higher if the liquid feed is supplied warm. HydroAir allows the temperature of the feed to be adapted to the age of the piglets.

Since the feed is transported to the trough by means of compressed air, the feed pipes are left completely empty after feeding so that there are no residues.



HydroAir liquid feeding system for piglet rearing

## Advantages of compressed air technology

In contrast to other liquid feeding systems, HydroAir operates by means of compressed air. That means:

- ✓ residue-free delivery of feed;
- ✓ no feed remains in the feed lines;
- ✓ vitamins and minerals can be fed without problems as they will not be left adhering to the inside of the pipes after feeding is finished;
- ✓ phase feeding is possible;
- ✓ optimal hygienic conditions and thus healthier piglets – especially in their gut health;
- ✓ installation of the valves outside of the compartments, therefore no electrical equipment in the compartments.



Transparent pipe for feed-flow monitoring

# HydroAir – flexible and powerful



HydroAir-Synchron – this double-tank system supplies large stocks without long waiting times

The main components of HydroAir include:

- ✓ stainless steel mixing tank with turbo agitator and tank cleaning device, available in different sizes (180, 250, 500, 750 litres);
- ✓ electronic weighing with 100 g scale resolution;
- ✓ positive displacement pump with a capacity of up to 3600 l/h and a supply pressure of up to 8 bar;
- ✓ feed valves consisting of T-ball valve and control unit for electro-pneumatic operation at a pressure of at least 6 bar;
- ✓ pipelines with a diameter of 25 or 32 mm;
- ✓ compressor with 4 or 7.5 kW motor, max. pressure 10 bar → approximately 80 % of the thermal heat can be recovered by means of a heat exchanger;
- ✓ feeding computer for overall system control.



Feed valves installed in the central corridor



Turbo agitator



Weigh bar



Displacement pump



Feed valve

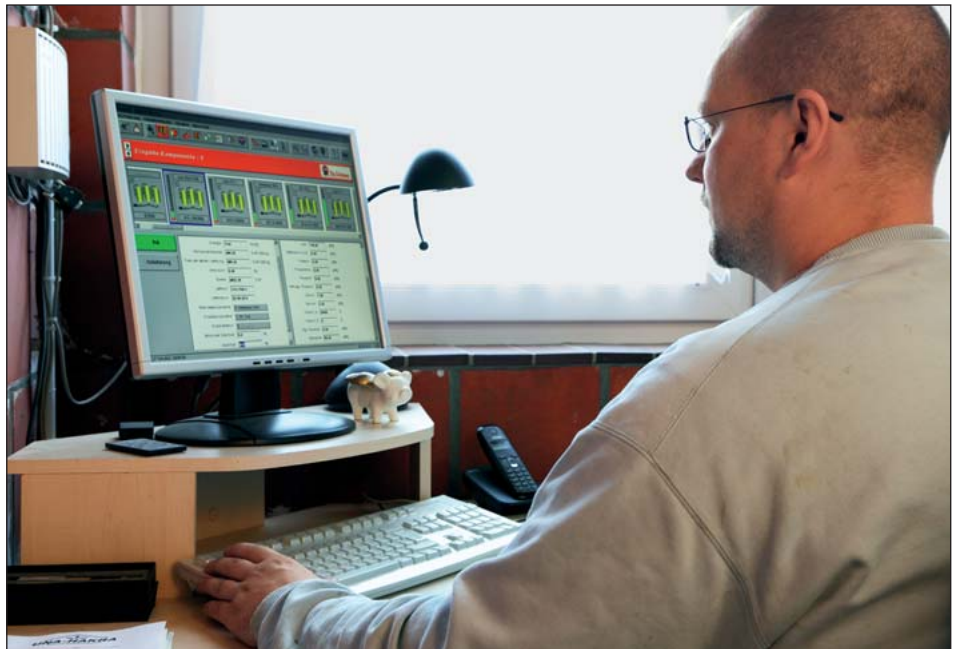


Compressor

## Computerized process control – simple, concise and easy-to-use

The feeding system is controlled by a feeding computer. This feeding computer can cope with highly-demanding tasks, including control of the individual feed valves, comparison of target and actual feed quantities and evaluation of individual grow-outs.

The computer allows the farm manager to compose different recipes. Data can be entered and edited in form of tables and graphs.



Simple and concise data entry and evaluation on the PC

# Hygiene – HydroAir sets high standards

Optimum hygienic conditions are a basic requirement for a high feed intake and feed conversion. The feed is transported to the trough by means of compressed air. It is then dispensed without any residues. This means that the feed lines will be completely emptied, therefore providing excellent hygienic conditions.

Our well-proven acid fogger distributes very small quantities of animal-friendly disinfectant solution to the tank several times a day. This way, the formation of a contaminant film which would otherwise occur after longer periods of use is pre-

vented. The fog penetrates every surface of the mixing tank, thus ensuring optimum disinfection and hygiene.

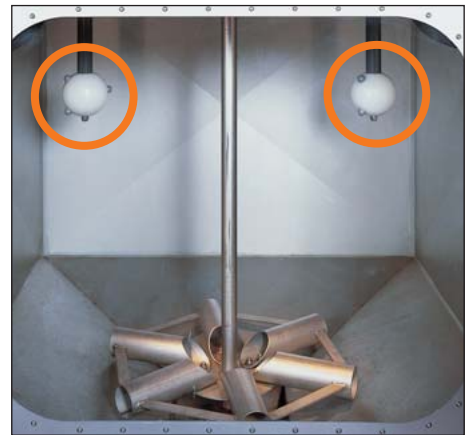
In addition, the feed pipes can be rinsed thoroughly with acidified cleaning water. The acid fogger is also controlled by the liquid feeding control computer.



Acid fogger for tank cleaning



Healthy, vital piglets thanks to excellent feed hygiene



Tank cleaning by means of rotating cleaner heads

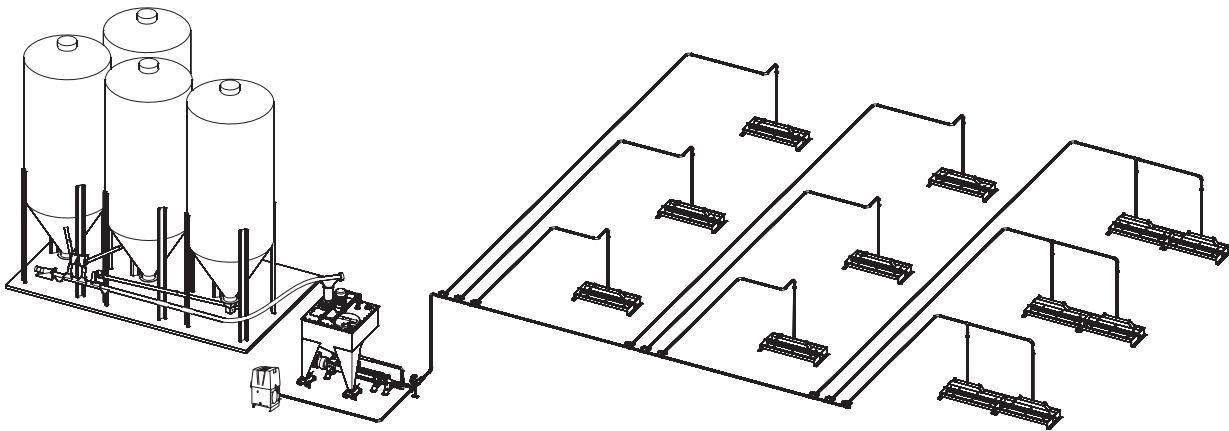


Diagram of the liquid feeding system HydroAir



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