

Liquid Feeding - Liquimix



The most reliable way of saving feed costs!



Reducing feed costs thanks to liquid feeding



by phase feeding and reducing feed losses

Advantages of liquid feeding systems as compared to dry feed

Source: Pig Progress, Vol 25, N9, 2009, John Gadd: Computerized Wet Feeding

- Significantly higher growth output (5.5%)
- Lower feed losses (4.8%)
- Better feed intake and 1 : 0.1 – 0.15 better feed conversion ratio
- Further optional reduction in feed costs by using by-products
- Increase in the weight of weaned piglets by 11%
- Considerably lower amounts of dust in the air and thus healthier working environment

In order to be able to take the currently high feed prices into account, it is absolutely essential for fattening pig farmers to adjust their feeding strategies to the rate of growth and the genetic performance potential of the pigs.

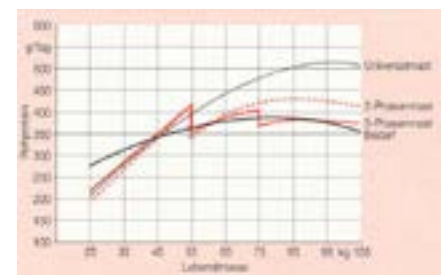
With the increasing weight of the fattening pigs, their feed intake and energy needs rise. Two thirds of the entire feed is eaten by pigs when they have reached a live weight of 60 kg.

At the same time, however, the daily needs for raw proteins, amino acids and minerals generally remain the same as from 60 kg.

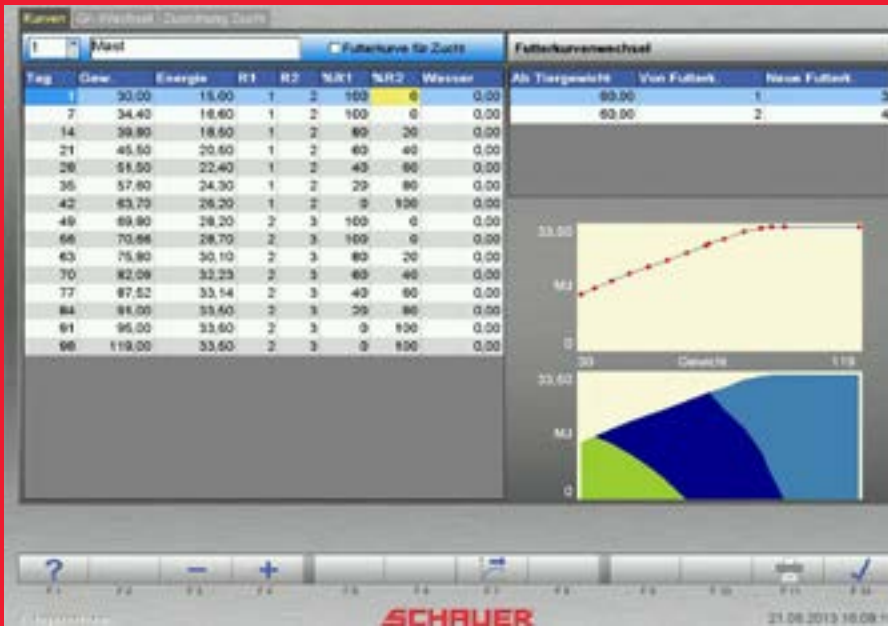
This means that the content of these ingredients in the pig feed (N.B.: raw proteins, amino acids and minerals) can be reduced in the course of the fattening process.

Thus, the excretion of phosphorus and nitrogen can be reduced subsequently by up to 20%. Due to the low strain on the liver of the pigs and the lower odour and NH₃-Belastung (ammonia) of the air in the stall, the health of the animals increases inevitably as a consequence. The feed costs can be reduced by up to €* 2 – 4 per fattening pig.

* Source: Bayer. Landesanstalt für Landwirtschaft, Versuchsbericht VPS33, Dr. H. Lindemayer, 05.06.2012



GENPRO multiphase feeding

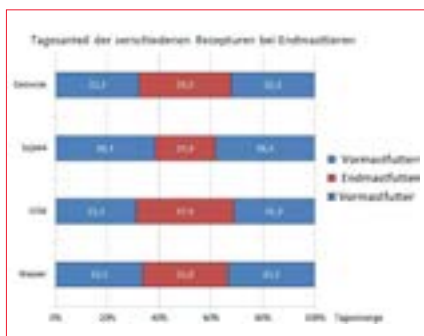


for daily automatic recipe adjustment

GENPRO Day

Since pigs are able to store proteins and nutrients over a longer period of time of several hours without any problems, it is also possible to provide the animals with a dosed mixture once per day. In doing so, however, it is important that the daily ration of ingredients corresponds to the weight of the animals.

Since all animals are fed according to the same recipe during the feeding in the morning and in the evening when using this system, the feeding process is completed very quickly and it is easier to control the animals. During midday feeding, the final fattening pigs are then fed with a mixture that is very low in protein.



GENPRO gradual energy/protein optimisation

A process ensuring that each animal group receives the right amount of feed with the right composition every day.

The needs for protein and lysine in relation to the required amount of energy change on a daily basis.

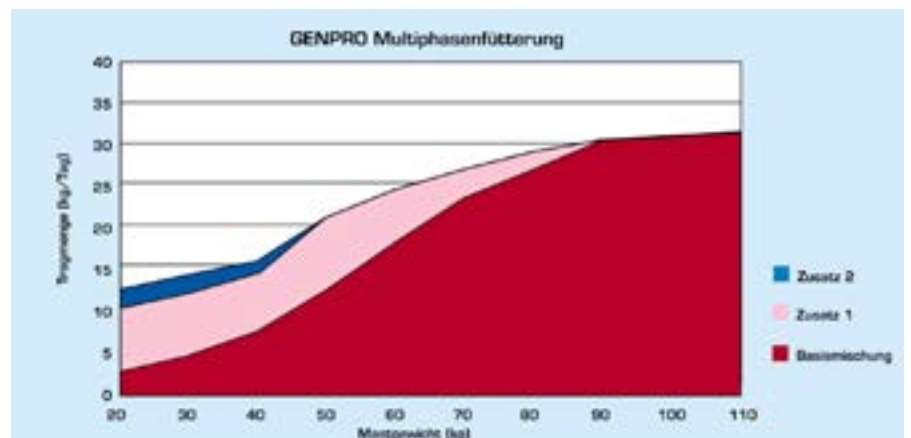
Too much protein in the feed leads to:

- Increased manure with increased phosphorus and nitrogen components
- Higher feed costs as described above

GENPRO saves up to 29% of the protein compared to single-phase feed (1 mixture throughout the fattening period) and up to 7% of the protein compared to three-phase feed (initial fattening, main fattening and final fattening periods). In most cases, not even additional technical equipment is required to use the GENPRO program.

GENPRO can be operated in two different versions:

1. In the case of homogenous groups, calculation, preparation and distribution are carried out according to the group.
2. In the case of mixed groups, a low-protein base mixture is distributed to begin with and then an additional mixture rich in proteins is fed afterwards as required.



Liquid feeding systems



With Schauer Liquid Feeding, you are on the safe side in economic terms. On the one hand, it is due to the system that liquid, fatty and, in most cases, particularly favourable components can be fed. On the other hand, the feed conversion ratio improves with liquid feeding as compared to dry feed, reducing the feed losses. With Schauer Liquid Feeding, you are working exceptionally efficiently. Thus, the distribution accuracy, for instance, is especially high when using Schauer systems.

The system decides on the flexibility:

It is due to the requirements whether feeding takes place in a rationed or ad lib manner, whether universally or in phases. If the system-specific restrictions such as the minimum mixing quantity and minimum portion size are taken into account in the planning phase, Schauer Liquid Feeding is considered to be an absolutely flexible, reliable and economic tool.

More than 40 years of experience in liquid feeding systems ensure the highest level of functionality and operational reliability. Continuous improvement and further development of liquid feeding results in the advantages mentioned as compared to other feeding systems.

The best solutions developed for the most diverse requirements

FullLine system:

The most straightforward system of all feeding systems. The feed line remains filled with feed after feeding has been completed. The circuit feeding line can also be provided as a feeding line and each feeding line can be fed with a separate recipe. Administering additives for each feeding line is possible without any carry-over.

TurboClean system: ①

For this system the pipe content of the feed line is blown back into the mixing tank. It is reused for the next circuit. The content of the last circuit remains in the tank until the next feeding takes place. In addition, all pipelines and feed drains can be cleaned by using a water-air mix and disinfected using adding organic acid. After feeding has been completed, the pipelines are clean and empty.

TurboJet system: ②

The most hygienic system of all feeding systems. As with TurboClean, the pipeline contents are also blown back into the mixing tank during feeding. For the last feed circuit, however, the remaining feed is fed by pressing the water line until the trough is empty. Immediately after feeding is completed, this water is blown back into the mixing tank and is reused for the next mixing process. A process water container is not required.



Highest level of functionality and operational reliability



More experience in terms of performance and hygiene

EasyFeed system: ③

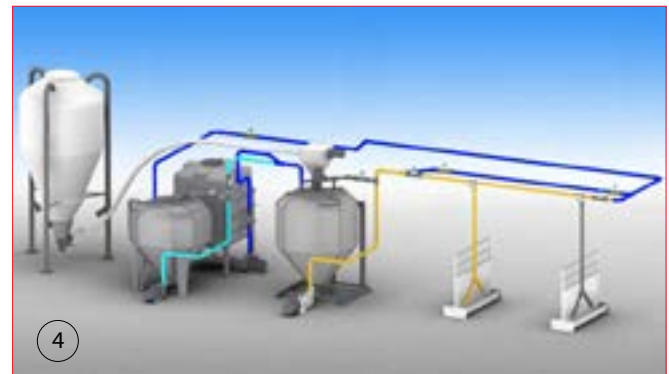
EasyFeed is a non-residue feeding system without a process water tank. It is equipped with the simplest technology. Thus, investment costs can be kept low. Several stalls can be fed with different recipes, ensuring that there are no residues in the trough after feeding has been completed. During the preparation process, fresh water is pumped into the mixing tank via the feeding line to be fed with the feed mixing zone in it.

EasySpeed system:

Using a flow transmitter, the feed can, in contrast to the EasyFeed system, be prepared for several feeding lines. The feed in the feeding lines is fed directly with fresh water from the water tank on the last feeding points of the respective feeding line to be fed until the trough is empty. Since in this case, too, the water required for preparing the feed is pumped into the mixing tank via the respective feeding lines to be fed, no process water tank is necessary here either.

ProcessWater system: ④

During the distribution process, the water in the feed line is displaced by the feed into an external storage tank and, subsequently, the feeding points are fed. The feed in the line is fed towards the end of the distribution process with fresh water or with the water in the external storage tank, ensuring that there are no residues in the trough after feeding has been completed. The remaining water in the external storage tank is used for the next mixing process.



Easy Diamond mixing tank



The true diamond among the mixing containers

The Diamond mixing container – no rotten compromises in the corners

The reliable and thorough cleaning of the liquid feeding mixing container is one of the fundamental prerequisites of feeding pigs successfully. The fact that not only the cleaning system itself, but also the container shape in particular plays an important role in well-functioning cleaning was ignored in most cases.

In addition to mixing small batches, particular attention was paid to the fact that the new Diamond mixing container can be easily cleaned thoroughly.

For this reason, all 90° corner joints were removed as compared to conventional mixing containers. This has the effect that dirt can be removed more easily in the remaining corner joints (max. 45°) and that there are no surfaces that cannot be reached by the cleaning system in the container, thus ensuring perfect container hygiene.

In addition to this, all parts of the mixing container can be screwed and unscrewed. Thus, it is also possible to install this feeding tank even in rooms with very small door openings.

The containers are available with an effective content ranging from 1350 to 5350 l and can be equipped with a 1-point or 3-point weighing.

With the pneumatic component locking slide valve, moisture is kept away from the feed conveyor spirals and screw conveyors in a reliable manner. The special design with the self-cleaning slide valve guide guarantees a long service life as well as smooth and trouble-free operation.



Cleaning and disinfection systems



guarantee optimum feeding hygiene

Optimum feeding hygiene is the essential prerequisite for the health and productivity (daily gain in weight) of the animals. With our 8-stage cleaning concept, we take a look at things where others don't take a look. Perfect feeding hygiene right from the mixing container to every trough.

8-stage cleaning concept

1. Baffle plate cleaning for preliminary cleaning via the feed pump
2. Fresh water / hot water cleaning via a paddle agitator with blockage-free, self-closing nozzles
3. Acid fogger for fat solving / removal and antibacterial container cleaning
4. "The cleaning thunderstorm" Easy Ozone - The ozone generator for the sterilisation and prevention of biogenic deposits in the feed tank provides, in connection with the acid fogger, unbeatable container hygiene
5. Optional fresh water cleaning for emptying and cleaning the feed lines (Easy) for non-residue feeding without a used water container
6. Optional TurboClean air-water fogger cleaning system for blowing out and cleaning the lines and feeding points thoroughly after each feed distribution round
7. Disinfection of the lines and feeding point drains thanks to the use of an acid dosing pump for TurboClean
8. Pipeline disinfection by means of chlorine dioxide cleans the lines and prevents signs of resistance from occurring without resulting in rinse water



Components



with loving attention and highest quality standards when it comes to detail

The pump is the central component for the feed distribution and provides, in connection with a speed controller, gentle and smooth transport and precise dosage of the feed.

Centrifugal pumps are available with a power output ranging from 4 to 11kW as a one- or two-stage version (depending on the line length and operating time). All parts which come into contact with the liquid feed mixture are made of stainless steel and acid-resistant steel and, by means of the oil-cooled gasket and the additional bearing, ensure a particularly long service life (AL-III).



For shorter operating times, a pump with a power output of 3 or 4 kW and without oil cooling and additional bearing (AD) is also optionally available.



If required, various different spiral pumps are, of course, also available for very long lines or for very high dry matter content.



In order to prevent the pumps from being damaged, a foreign matter separator can optionally be used. This separator can also be equipped with solenoid cartridge.



For the water containers which are available with a volume ranging from 1080 to 1820 l, special attention was placed on the resistance to UV radiation resulting from the black colour as well as on the ease of cleaning and complete emptying.



Accessories



improve functionality, operational reliability and ease of use

In order to clean up the feeding kitchen

With the pre-assembled circuit feeding line distributors that are designed for the respective system, not only the time required for the installation is reduced significantly, but also all valves are clearly arranged and can thus be easily accessed.

If the compressor is running all the time,

this might be due to a defective membrane. With the patented DMD (Defective Membrane Detection) monitoring system, you do not have to waste your time for looking for a needle in the haystack. Your feeding computer calls your attention to the defective membrane, before you would even have noticed it.

In order to ensure that the dust remains in the container

With the revolutionary dust collector, the feeding kitchen remains dust-free and the container is still ventilated. The dust is bound in the water and rinsed back into the tank.

Accessories for your individual system

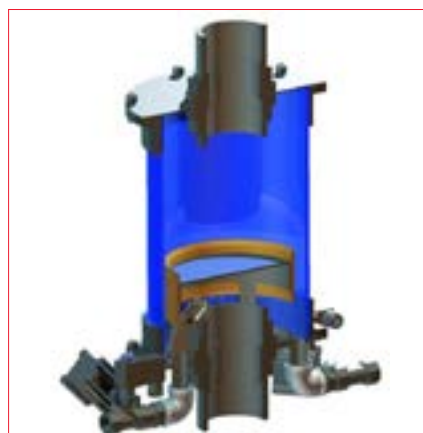
For every application purpose, a large number of accessories are available. If you have any queries, please contact your field sales force representative.

If some additives are required: Vitaplus

The preparations (vitamins, additives etc.) are injected into the feed flow when distributing the feed and mixed homogeneously with the feed.

The benefits at a glance:

- Available with precise flow rate regulation on request
- Ideal for administering additives automatically with sensor ad lib feeding
- Lower volume of additives, because they are no longer added to the entire feed, but are administered in a targeted manner
- No carry-over in the system



Component transport



for hygienic and reliable dosing of the feed components

Spiral screw conveyors

In order to complete the liquid feeding product range, we also deliver a comprehensive spiral screw conveyor product range with pipe diameters ranging from 55 to 125 mm.

The screw conveyor product range can be used both as feed conveying equipment and in combination with dosing equipment. The high-quality conveying spirals are characterised by high resistance to tensile stress and an extremely long service life.



Rigid silo screw conveyors

For the reliable and, above all, rapid dosage of dry components, rigid screw conveyors have demonstrated their worth and are available in different lengths.



Feed boxes

In order to ensure that there is only a minimum exposure to dust in the feed chamber, all conveyors can be joined in feed boxes. They can be used for all types of spirals with different diameters. In addition, rigid screw conveyors and the CCM feed line can also be routed into the feed box. Thanks to the particularly steep discharge cone, these feed hoppers are also insensitive to adhering feed and thus improve feed hygiene in a sustainable manner.



Trough screw conveyors

If the same components are to be used in several feed mixing containers, the trough screw conveyor thus constitutes the most straightforward version of component distribution.



Schauer silo product range

Safe and secure feed storage in modern, well-designed polyester silos. Our silos are made of premium materials. They offer comprehensive standard equipment such as transparent level stripe marks, hot-dip galvanised filling and ventilation lines and an ascension ladder. The silos are available with capacities ranging from 3.5 to 56m³.

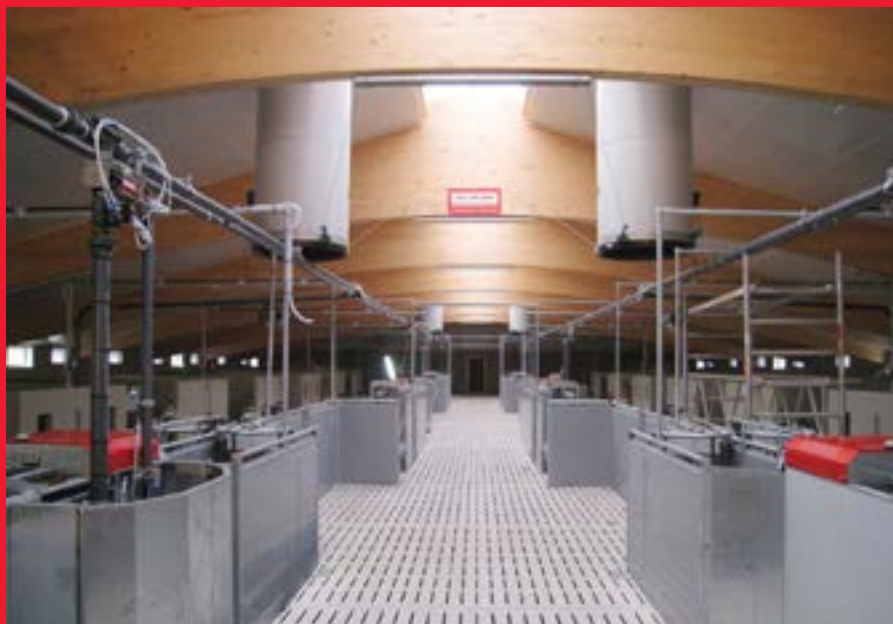


Trevira silos

For interior use, Trevira silos made of 100% polyester fabric are available.



Compident Liquid Feed *ESF*



The new Compident series is based on 40 years of experience in electronic feeding technology. This pays off when upgrading and retrofitting the system.

for the individual liquid feeding of pregnant sows

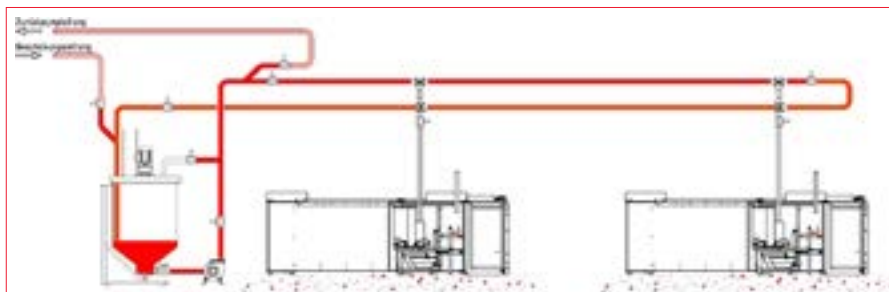
Why choosing Compident Liquid Feed

With special equipment, the advantages of liquid feeding, the feeding of by-products such as yeast, slop etc. in particular when feeding pregnant sows can also be made use of. In doing so, it is not necessary to forego the advantages of electronic sow feeding, with its precise and individual dosages. However, it is important to pay attention to a precise system design.

The dosing valve

Using this dosing valve specifically tailored to the requirements of liquid feed, it is possible to always dose precise portion sizes. Due to the removal of ball valves, wear and tear, too, were reduced to a minimum. Thanks to especially developed filling algorithms, the Compident stations can dose at any time, without having to take other feed stations into account.

Thus, even large sow units can be supplied with fresh feed using a single distribution system without having to accept annoying waiting times or inaccuracies in the dosage.



The control unit

Using the tried and tested Topo control concept, not only the entire liquid feeding system is controlled, but also all Compident stations are operated and managed. Therefore, no additional control computer is required. Optimum sow management is also included.



Compident VII and Compident Smart

- Reliably functioning station for calm and stress-free processes
- Straight walkthrough station with controlled entry gate means that the sows can leave the station at any time
- No stress in front of the entry gate, as each animal can enter the station at any time
- Automatic animal identification (TIRIS and ISO)
- Low on wear and tear
- All elements react with no harmful impact on the animals



Large-scale systems



Networked solutions for complex demands

Large-scale farms also require large-scale and full-scale thinking. With this in mind, Schauer is thus committed to efficient solutions which are tailor-made for each farm.

Large livestock requires special technologies

As from a certain livestock size, it is no longer possible to feed all animals using a single standard-type liquid feeding system for time reasons.

Therefore, you must aim to save time wherever possible or carry out several activities at the same time.

This places particular requirements on the computer capacity and on the reliability of the system.

Synchro feeding system

The Synchro feeding system is a system in which mixing takes place in one container while the second tank is used for feeding.

The benefits at a glance:

- Quicker, because no time is lost on preparing the feed
- Small, compact tanks instead of a big container
- Premium cleaning and mixing functionality
- Ideal for GENPRO multiphase feeding
- Can be used for all container sizes
- Livestock numbers of up to 12,000 animals can be fed using a single system

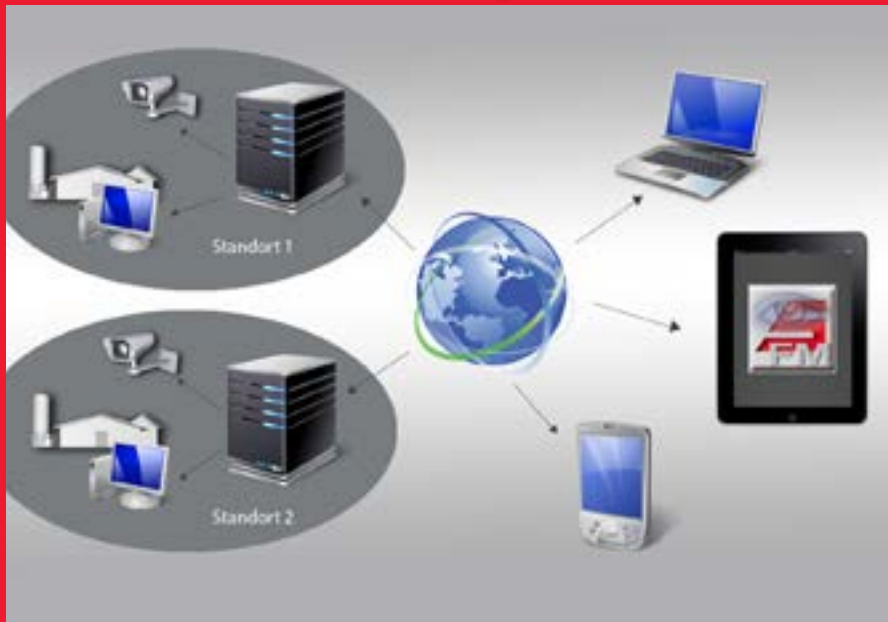
Networks

- Networks mean that the overall system can be divided into several parallel feeding systems, all of which are supplied by a joint central feeding station
- All computers are linked via a shared network which is controlled by a master computer in the central feeding station



FarmManager

Online livestock management



Individual and flexible! *As life should be!*

Individual customer configuration:

- Operations and company monitoring across locations
- Central operations software for animal management; integration of third-party software
- Structured detailed views for all function areas enable fast access
- Individual farm unit plan with interactive alarm centre

Schauer FarmManager is the ideal management tool for professional livestock farmers. The software processes feed and water consumption data together with technical system information in real time.

Schauer FarmManager is the first-class solution not only for the manager who needs status information from all his farm locations but also for the area manager who wants to see information from a detailed area which is necessary for making decisions.

Schauer FarmManager is intuitive and easy to use – simply perfect!

Monitoring the health of the animals:

Thanks to a wide range of different data and perspectives available for individual animals or groups, changes in the time pattern may be an indication of a health problem. A sudden decrease in feed or water consumption or changes in the feeding order in groups of sows are initial symptoms that occur before illnesses become apparent.



- Saves costs
- Optimises profit

Topo feeding computer



sets standards in terms of functionality and ease of use

Topo feeding computer

Schauer feeding computers must function properly even under the most demanding conditions – 24 hours a day, 365 days a year.

Under such conditions, conventional computers reach their limits of performance very quickly. Schauer computers are made for these. For this purpose, extreme reliability and thus quality right down to the last detail are required. In order to be able to ensure this, all components of the Schauer computers are developed, tested and produced in our in-house electronics department according to our own quality standards.



Topo wet room

Thanks to its compact enclosure, this room offers protection against moisture, dust and aggressive influences. All functions are displayed on the illuminated TFT colour monitor. The ergonomically designed operation allows fatigue-free working.



Schauer feeding computers are characterised by highest

- ease of operation as well as
- functional reliability and data security!

Stall management made easy!

Topo

Topo was designed for operation at the desk in the stall office and offers comfortable operation using a TFT colour monitor, a keyboard and a mouse. In both devices, industrial embedded boards have been installed. An integrated uninterruptible power supply ensures safe and reliable operation. Data is backed up on a USB flash drive.

Manual control unit

The manual control unit with status indicator makes it possible that all devices and valves can also be switched and monitored, independently of the computer. With the integrated scales indicator, you can also mix and dose the feed manually as required.





Modern and intuitive operation

The programs

Modern, clearly arranged and, above all, highest ease of operation, these are only some of the advantages of the new Windows program interface.

A comprehensive program package meets all your wishes and requirements, be it the implementation of your feeding strategies, the correct analysis and optimisation of your feed or the precision as regards the preparation and distribution.

- Comprehensive functions facilitate the operation and monitoring of your system
- Thanks to the clearly arranged 3D display, you know at any time what is currently happening in your feeding system
- Using modern interfaces, remote control and maintenance via Ethernet, WLAN or internet are possible
- A sophisticated management package allows you to evaluate your results from the point of view of business management and animal science
- An environmental package evaluates nitrogen and phosphorus balances based on the feed used and the overall production results
- The data is saved in a SQL database and can be exported from there, for example in the XML format



High-tech and high-touch when it comes to service



Worldwide, but always nearby

Schauer feeding technology combines decades of experience and the very latest state-of-the-art technology standards. Thanks to individual consultation and planning, Schauer products have gained acceptance throughout the world.



Schauer Power: Development, planning, production and installation under one roof

Our own large electronics department develops and produces computers, control electronics and control panels. The engineers and computer scientists in our in-house software department are dedicated to developing the computer programs even further. With the installation of a new automatic circuit board production area, another improvement in performance and an increase in operational reliability could have been achieved.

Quality management:

Our own testing laboratories to measure the electromagnetic compatibility and interference resistance to high voltage enable us to produce sturdy, fail-safe equipment meeting all CE- and national standards.



More than 40 years of experience in fully automatic, electronic feeding technology and more than 55 years of experience in mechanical production ensure sophisticated products and provide service and the availability of spare parts in the future even for older machinery. Numerous subsidiaries and our local sales partners ensure fast service and reliable spare part supplies throughout the world.



Customer service

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SCHAUER[®]
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