BAUER-AGROMILK GROUP

TECHNOLOGY FOR PIG FARMS

- Feed storage
- Feeding systems
- Stock for wet corn
- Controlled feed fermentation
- Penning systems
- Ventilation systems
- Control systems for ventilation
- Heating systems
- Microclimate cooling systems
- Stable construction
- Slurry systems
- Camera systems
- Feed mills
- “After market“– sale items
- High-capacity grain silos
Bauer-Agromilk group

Technology and buildings for pigs

Technology and buildings for poultry

Technology and buildings for cattle

Separation of slurry

Transport and manufacturing of slurry

Milking parlours

Meat processing

Milk processing

Supplies of constructions

Projecting and engineering (architecture office)

Turn-key projects
Bauer-Agromilk philosophy

„designed with the pig producer in mind“

We prepare for you the newest and best technologies for your pigs. We offer complex solutions of pig farms. Our strong advantages are „turn-key“ deliveries. In cooperation with our partners, the world’s biggest producers, we are able to preset the highest quality know-how in pig breeding in the sphere of new buildings, reconstructions of stables and supplies of high quality technologies.

This is the group BAUER-AGROMILK.

BAUER – AGROMILK
= your supplier of technologies, buildings, projects and know-how

We offer these basic activities whose aim is to offer complex services in the highest quality and favourable price:

- Sale of complete technologies for pigs, poultry and cattle
- Production of technologies from own development (3 production factories)
- Projecting (own studio in Tábor) and distribution of know-how developed in cooperation with partners from USA, England, Denmark and others countries.
- Turn-key deliveries for agriculture and food processing (buildings, technology, projects, etc.)
- Service and installation
- Engineering
- Financing (all sorts of financial products for financing of our deliveries, inclusive leasing, export credit, financing of demands, etc.)
- We make projects for financing from the structural funds EU
We offer delivery of steel or plastic (laminated) silos in many versions, diameters and height inclusive silos for wet corn, silos with big capacity and feed mixture production.

**FIRE - GALVANIZED STEEL SILOS**

High quality silos, installed by BAUER feature:

- 30° roof for easier run-down of water and dust
- Feeding hopper 45, 60 and 67° for easy outlet
- High tolerances provide absolute water tightness
- Corrugated sheet provides quality protection of feed against temperature influence
- Mechanic and pneumatic filling
- Access ladder with a basket
- Assess hatch on top
- Stock-level viewing windows in the wall

**PLASTIC SILOS**

They are made of modern glass-fibre reinforced materials in combination with a steel, zinc-dipping supporting structure. They are made, being conformable with world’s trend and knowledge of stocking of feeding ingredients, cereals and other materials. Glass fibre has a very good thermal insulating characteristic, which is why condensation of water vapour and sticking of the content on wall is eliminated. Silos are delivered with following equipment:

- Pneumatic and mechanic stocking
- 9 types of outlet
- Sock-level viewing windows in the wall
WEIGHING SYSTEMS

For an exact overview of fed quantities of feeding it is necessary to install a weighing system. Bauer offers 2 kinds of weighing system:

- **weighing with Load Cells (under each leg of the silo)**
- **weighing with proportioner (firstly the conveyor doses the feed into the storage tank of the weighing machine and then the second conveyor transports the feed to the feeding system in stable)**
Feeding systems

We offer every kind of „BAUER“ feeding technologies, feeding units and feeders, inclusive fully automated systems of liquid feeding and chip feeding for sows.

**FLEX AUGERS:**

It is high duty and simple transport system with outputs of 400 – 6,700 kg/hour. Providing a transport of granulated and loose feed. BAUER flex augers have an extremely long lifetime; we offer plastic or steel bends and plastic pipes with a metal coating.

<table>
<thead>
<tr>
<th>Feeding system</th>
<th>Outside diameter (mm)</th>
<th>Curve rad. (m)</th>
<th>Max. length (m)</th>
<th>HP (PS)</th>
<th>Feed/min. (kg/min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 55 FLEX-AUGER®</td>
<td>55</td>
<td>1,5</td>
<td>80</td>
<td>1/2</td>
<td>6.75</td>
</tr>
<tr>
<td>Model 75 FLEX-AUGER®</td>
<td>75</td>
<td>1,5</td>
<td>65</td>
<td>1</td>
<td>22.5</td>
</tr>
<tr>
<td>Model 90 FLEX-AUGER®</td>
<td>90</td>
<td>1,5</td>
<td>50</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Model HMC FLEX-AUGER®</td>
<td>90</td>
<td>1,5</td>
<td>50</td>
<td>1</td>
<td>22.5</td>
</tr>
<tr>
<td>Standard Model 108 FLEX-AUGER®</td>
<td>108, 115</td>
<td>1,5</td>
<td>50</td>
<td>1 1/2</td>
<td>100</td>
</tr>
<tr>
<td>High-Speed Model 108 FLEX-AUGER®</td>
<td>108, 115</td>
<td>1,5</td>
<td>50</td>
<td>2</td>
<td>11.2</td>
</tr>
</tbody>
</table>

**CHAIN CONVEYER:**

BAUER chain conveyers have a huge transport length of up to 300 meters and capacity up to 1.350 kg/hour. The drive unit is placed in a box of stainless steel.
CABLEWAY CONVEYORS:

We offer cableway systems in two standard sizes: 50.8 mm and 63.5 mm and at request, 38 mm too. This system has three advantages over other systems in the marketplace: long trouble free life, high safety features and long guarantees. Huge system lengths of up to 500 metres.

**Drive unit**

The driving wheel has a large diameter handling safe transfer and minimal cable bending with plastic teeth. The main wheel has a rubber mounting to cut down the load force at starting. The drive unit can be installed on the floor or on the wall. An over-load security system on the drive prevents cable damage due to over freight or intrusion of foreign particles in the system. An external indicator shows the cable tension.

**Inlet hopper**

The BAUER Inlet hopper is very simple; it can be placed in or out of the stable, on the floor or under the silo. It can be supplied with or without a drive motor and has a sight-glass. Features a security trap to prevent system damage of foreign particles. At request we offer stone catchers too.

**Cable with traps**

The feed cable has a special rubber coating protection, under the coating is oil that stops the cable drying out which enables it to stay strong and flexible, seriously increasing it’s service life.

**Bends**

Moulded from a durable plastic that can be fitted horizontally, vertically or at a gradient. The inner wheel is equipped with close ball bearings. High tolerances stop the ingress of dampness.
**FEEDER**
We offer many different types of feeders and dosing machines for sows, piglets and finishing pigs.

<table>
<thead>
<tr>
<th>Volume batcher VD-2</th>
<th>Volume batcher ECONO</th>
</tr>
</thead>
<tbody>
<tr>
<td>With a transparent plastic vessel, provides the perfect view of feed quantity for every sow. Can be used with automatic or manual control, with capacities from 4 to 8 kg.</td>
<td>An easy and cheap dosing unit with ideal summary of dosed feeding.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tube feeder MEW and AP</th>
<th>Feeders in group pens AP and MAXIMAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is an improved type of feeding automat with the plastic reservoir in top part. An easy construction has more possibilities of a dosage setting. Low price and ease of cleaning.</td>
<td>They present a modern system of feeding automats made from stainless steel for piglets and finishers. Combination of tube and feed hopper styles with stainless trough (finisher version) offers optimal hygiene and operation. High tolerance ensures no ingress of dampness. Optimum shape ensures trouble free dosage for both pellets and meal without bridging.</td>
</tr>
</tbody>
</table>

**BIOFIX FEEDING**
BIOFIX = easy, a very functional restrictive feeding system for groups for sows.

- Feed dosage by a spiral at speeds to match the sows voluntary consumption (cca 3gr/sec)
- Dosing flex auger can be installed to all types of dosing machines
PHASE FEEDING
This system was developed because of the need to feed many kinds of feed mixtures from one system into one feeder according to programmed feeding curve. It is ideal for weaners and finisher.

<table>
<thead>
<tr>
<th>Sliding part of phase feeding</th>
</tr>
</thead>
</table>
The feeding outlets are equipped with a stainless steel slide that has a three position adjustment to cater for different types of feed being fed in appropriate pens. The Indicator shows exactly the type of feed.

<table>
<thead>
<tr>
<th>Feed change</th>
</tr>
</thead>
</table>
A motor moves the slides to change feed type.

<table>
<thead>
<tr>
<th>Overflow hopper</th>
</tr>
</thead>
</table>
All feed residues are emptied into holding hoppers by feed type. Automatic valves (24v) control the opening and closing of these hoppers.

<table>
<thead>
<tr>
<th>Control unit</th>
</tr>
</thead>
</table>
Monitors all feed functions with up to 40 feeding times. The display shows all information about the feeding strategy, feed used, alarms etc. Operation is logical and user friendly.

CONTROL UNITS OF CONVEYERS
We offer 2 types of modular control units. Both have a possibility to program the system with working times and alarm for motor overload and cable over freight, all in an easy and user friendly way. We produce the control unit of your request, with switchboards if required.
Feeding systems

ELECTRONIC FEEDING SYSTEMS

BAUER PROVIDES computer controlled liquid feeding systems for large and small farms. Developed over 30 years, systems have been in use in all sorts of operating conditions and continually being developed. The equipment is constructed using a modular system enabling easy, low cost changes and additions. Along with Bauer/Agromilk service, this is the ideal offer for you. Fully automatic feeding system for pigs using alternative feeds such as whey or fats, or the new fermentation regime (see Fermented Liquid Feed). Feeding can either be restrictive or on-demand with trough sensors. The computer controllers ensure optimal effectiveness of feed regimes according to energy, price etc.

TANKS

One piece plastic moulded tanks using HFS single unit agitator feed pumps and FlowMixer systems available as 1000, 2000 and 4000 litre capacities.

- Hygienic. Fully emptying with no feed residues.
- Corrosion-free. Last for years.
- Mixing. All feed ingredients thoroughly mixed.

CONTROLLERS

BAUER “HFS” supplies computer controllers that are fit for the purpose, cost effective, reliable and as easy to use as possible. There are 5 modular systems available to cover every farm situation: the MixManager for feed preparation, the SectionManager for feeding many different sections/groups of pigs, the FeedManager for pig-demand feeding, the StockManager for restricted or long trough feeding and the PhaseManager for phase feeding.

SOFTWARE

The Manager Series Controllers are simple to learn and easy to operate. They can be connected to a PC and use the power and versatility of standard PC programs to gather and calculate data produced to meet individual farm needs. The Controllers have a self-learning ability to compensate for shortfalls or overruns, ensuring the highest degree of accuracy.

MIXERS

The no moving parts Stainless Steel FlowMixer system ensures thorough blending blending of dry and liquid feed ingredients as they enter the feed tank. This is a very fast and efficient method of mixing, as during preparation, further mixing/agitation of the feed within the tank takes place which ensures that after all the ingredients have been prepared, further mixing is not normally required.

PUMPS

Cast in 316 Stainless Steel and specifically designed for liquid feeding to give optimum performance, the unique HFS two impeller system enables the feed to be agitated in the tank while pumping it to the pigs. The centrifugal action ensures a long and trouble free life against abrasion and corrosion. The pump’s main seal and bearing are flooded with oil, providing a long maintenance free life which also means the pump can run dry of feed for long periods without damage.

FEED VALVES

The air-operated diaphragm feeding valve supplied by HFS is strong and easy to maintain. The diaphragm itself is made of highly wear-resistant material to give a long life. The valve cap has an ingenious built-in housing to protect the electric cable connections. For ease of installation and maintenance, the HFS feed valve is fitted directly to the main plastic pipeline by a stainless steel clamp and bolts.
ALTERNATIVE SYSTEMS

Depending on the feeding strategy, ration, size and structure of herds, HFS controllers will always provide the optimal solution for your farm. From standard, normal feeding systems, through to phase feeding or any solution to suit every farm situation.

STANDARD SYSTEMS

Standard systems mean the traditional use of liquid feeding where feed remains in the pipes, ready to feed at any time. HFS controllers calculate the quantity of ration both in the mixing tank and in the pipeline and compares with the requirement according to the feed curve. The system can calculate changes in the number of animals and the feed curve and amend the amount fed, always reaching the optimal feeding mixture. The controllers will also provide data on feed curve, quantity fed, liveweight gain and feed conversion.

PIPELINE RINSING

Pipeline rinsing eliminates feed remains in the pipeline either by loading with fresh feed, washing through with water or by inserting a plastic body (mouse) in the pipeline. These three methods offer together the possibility of having several kinds of mixtures in one pipeline.

PHASE FEEDING

The basic principle of phase feeding is that two individual mixing tanks prepare two different mixes with high and low protein content. Two separate pipelines in parallel run through the unit above the feed valve which is connected to the outlet pipe for each pen. Because the two valves open at the same time, it is possible to feed the exact mixture of protein-based feed according to the growth phase of the pigs. This system is high effective for liveweight gains.

PC/NET COMMUNICATION

This concept was designed with internationally standardised PC formats. This means easier access to other controller programs as well as the ability to communicate with other systems. Data can be retrieved from the controller to a PC or portable computer where data on the functioning of individual feeding systems (such as feed used, number of animals, feed curve, liveweight gain, feed conversion, etc) can be regulated and analysed using standard PC software.

AD LIB FEEDING

Ad lib or sensory feeding enables the optimal use of pens by using fewer troughs. Sensors in the trough detect feed levels and fill accordingly. This method improves intakes and growth rates together. We recommend a ratio of 1:3 up to 1:6.
Feeding systems

ELECTRONIC FEEDING BOXES WITH TRANSPONDER

For restrictive feeding of sows for perfect evidence and checking of herd, we offer the system for automatic feeding boxes. Boxes can work based on:

- Dry feeding (with options for more feed types) kinds.
- Liquid feeding (System connected to liquid feeding system, with the possibility of 2 types of feed mixture)

This system provides individual feeding of sows, appropriate check, selection and view of herd, as well modern control of farm. This modern and effective system provides increase of production and improving of condition of animals. We offer systems for small groups of sows: 6–14 with easy construction and automatic boxes for 40-60 sows for 1 feeding box.

Numerous boxes can be arranged together for feeding groups 40-60 sows up to dynamic groups of 300 sows and more.

SOFTWARE

The feeding computer can be connected to a PC and the printer can be used without the PC connection. Very easy and well-arranged program is perfect not only for feeding but for evidence of particular animals too. An option for a live connection to a manual terminal.

Software allows monitoring data of:

- Farm
- Feeding
- Sows (animals)
WET CORN FEEDING (CCM)

Modern feeding system for pigs enabling high cost economies in breeding:
- It is possible to connect this system to both liquid feeding and dry feeding systems
- For liquid feeding systems on bigger farms, we recommend storage of wet corn in silos using CO2 gas
- For dry feeding system is possible to store the corn grain in: silos, sacks or a hole

This way of feeding is intended for mixing tanks with purpose built mixers with a weighing sensor. All system are connected to a conveyer system (or conveyers) of dry feeding, controlled by specialist control unit.

Mixing tank – we offer standard two types of size. Every tank has 3 outlets.

<table>
<thead>
<tr>
<th>Tank diameter</th>
<th>Height</th>
<th>Max. volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.900 mm</td>
<td>2.300 mm</td>
<td>1.000 l</td>
</tr>
<tr>
<td>2.500 mm</td>
<td>2.700 mm</td>
<td>2.200 l</td>
</tr>
</tbody>
</table>

VARIO-MIX - ELECTRONIC FEEDERS

Feeders Vario-Mix without identification of animals in group
Vario-Mix feeders work with the VVC computer. As the sow enters her head in the feeder, a time-delayed photocell dispenses a small dose of feed. The computer has a feeding curve for daily dosage for a sow. Feeding in small doses ensures that the group of sows (6-8) are calm with every sow receiving her amount and does not go hungry. Vario-mix without identification is intended for the sows in each group to require similar feed quantities. Can be used for pelleted or milled feed, or liquid feed.

Feeders Vario-Mix with identification of animals in group pen
Vario-Mix with identification has special push-bolt in trough. Every animal gets exactly her feed requirement by adhering to a feeding curve. Sows are identified with an in-ear transponders and feed is dispensed if required. Trough access is allowed by controlling the push-bolt. Feeders are intended for 12-15 sows.
FEEDING SYSTEMS

FEEDING BY WET CORN TECHNOLOGY
Feeding with maize grown for grains and stored in a damp form is more and more interesting possibility how essentially rationalize feeding of pigs. It is a technological set consist of the filling system and storage of grain without its drying in enamelled silos in gasproof form with cone bottom. Deliver from storage with consecutive grinding is in mixing tanks of liquid feeding for pigs. Maize is brought in receiving hopper and then the receiving snake doses the maize directly into silo. Then the fermentation procedures happen, CO2 comes up and it cures the maize. Waste gas is transferred in sacks, from these sacks is given off by feed taking over regulation unit.

Advantages:

- Connecting to the liquid feeding system
- High Moisture content storage: up to 38%, cereals up to 25% (storage of all grains)
- Well-balanced temperature of feed – in winter temperature approx. 12°C
- Better digestibility of feed with higher nutrient content
- Well-balanced quality of feed during the year
- Continual filling and off take
- Grinders with the load of 20 to 70 kg/min.
- Up to 20% lower investment costs against other systems
- Reduced feeding costs, up to 30%

MICROCOMPONENT LINE
We offer special dosing machines of micro-components, vitamins, amino-acids, calcium, etc.

Every liquid feeding system can work as your farm’s factory for feeding mixtures. Appropriate micro-components included with high accuracy directly into the mixing tank. Reduces feed costs by up to 10-15%.
FERMENTED LIQUID FEED

ABOUT FERMENTED LIQUID FEED
Developed in conjunction with the University of Plymouth, England and Hampshire Feeding Systems, Fermented Liquid Feed (FLF) is a process whereby feed is left to ferment before being delivered to the stock. The cereal proportion of the ration is fermented and the process relates to this process. There are two forms of FLF: Controlled and Uncontrolled. Controlled FLF requires the input of a primer inoculant to aid the fermentation process and maximise the level of lactic acid production to bring the pH of the ration to below 4. Uncontrolled FLF allows the natural bacteria and other micro-organisms to develop without maximising acidity and thereby possibly preventing harmful bacteria and other organisms from degrading the ration. It also allows the natural yeasts to develop which have a detrimental effect on feed.

FEED BIO-SECURITY
When using the recommended Controlled regime, lactic acid is produced and this reduces the pH of the feed to below 4. Within this environment, the level of micro-organism activity (including harmful ones such as E. Coli, Salmonella, Lawsonia and Campylobacter) is suppressed and therefore the feed is more bio-secure. The potential health benefits are obvious: reduced feed-related health problems, lower medicine and veterinary costs and lower mortality across the herd. As the feed is more bio-secure and preserved, its mixed shelf life is greatly increased, two weeks in most cases.

CHEAPER INGREDIENTS
FLF can make use of cheaper feed ingredients such as potatoes, rye, peas and beans and other co-products to reduce ration costs. FLF breaks down the raw materials in the cereal part of the ration and makes more ingredients available, the efficiency with which feed is used improves. This also affects the use of soya; the level of digestible protein rises and is much more tolerated by smaller pigs. Therefore less soya needs to be added to their ration and therefore their ration costs can be significantly reduced, in some cases saving up to 15% of the total soya used. This process also allows the grinding size of cereals to be reduced below 2mm, which greatly improves digestibility and FCR.

FASTER GROWTH RATES, BETTER FCR
The fermentation process produces a more acidic feed which is even more palatable than normal liquid feed: very important in getting the stock to eat. FLF can also improve feed digestibility by breaking down some of the ingredients before they are fed, potentially speeding up growth rates. More of the feed may be used for growth rather than to produce energy. As more of the ingredients are made available for digestion, FCR can be improved compared to dry feed. From the Tables on the right, FLF showed 10-15% improved feed consumption, 13% better gain than normal liquid feed and 22% better gain than with dry feed. FCR shows nearly 11% improvement over dry.

ENVIRONMENTAL
FLF improves the availability of trace elements and minerals in raw materials which could mean reducing the levels added to feed. This can potentially reduce pollution effects on the environment, particularly with phosphorus and nitrates, and also reduce the smell produced from slurry.

ADDITIONAL
HFS is working closely with Danish consultancy company, The Fermentation Experts, who have over 70 farms in Europe already successfully feeding pigs using their Controlled Fermented Liquid Feed process.
From our production and development we supply a number of systems tailored exactly to your farm requirements, drawn from: technological, architectural, veterinary and zootechnic knowledge from all over the world.

We produce for you, optimal ordering of stable under current EU codes and unique know-how proven in practice. Combinations of steel (zinc dipped), stainless steel and plastic parts with high levels of proven design. BAUER pens are welfare friendly.

**STABLING OF DRY SOWS AND SOWS AFTER INSEMINATION**

We offer all the elements for stabling dry sows and sows after insemination, pregnant or farrowing sows and suckling sows.

**Classic eroscentrum**

An excellent system for individual and grouped pens, designed for the well-being of animals during veterinary operations. Pens are arranged to stimulate the function of the boars. Clever construction allows easy access to breeding sows, and entry and exit of animals without problems. For stables with narrow corridors, we suggest a back part foldable bin, which makes for easy entry and exit for the sows.

**Intensive eroscentrum**

Special boxes with sow exit over frontal gate. Pens for boars are arranged at the head of the sow rows. At the back, every pen is equipped with a two-part gate that allows the sow to enter – ideal for breeding, easy for service and for installation. Water inlet and outlet pipe for feeding are built into the frontal part of the barrier.

**Self-bounding box**

Designed for easier entry and exit for the stock, with efficient stabling for sows, especially in stables with narrow corridors. Foldable rocker-type casing helps sow enter and exit. The box is designed so it can close itself without any sow leaving. Exit from the box is controlled centrally with the exception of sows that have been selected to be left in for checking, insemination or selection.
STABLING OF PREGNANT SOWS

Stabling of pregnant sows presumes we are dependent on stabling technology (small or big groups) and a restrictive feeding system.

**MultiBox system**

This is a modern system of stabling combining individual and free pens for sows. Modern trends go towards sow stabling in big groups, at the same time giving the possibility of holding them in individual boxes for veterinary inspection, checking etc.; otherwise the sows are in a big pen with the rest. Ideal system is for pens with deep bedding or partially slatted floor. MultiBox is an obvious and reliable variant to other systems for free stabling of sows.

**Biofix system**

This is an easy system of stabling sows in groups with separation of feeding places by trough with the help of a short barrier that provides restriction to feed. It is suitable for liquid feeding systems as well as dry feed systems using volumetric dispensers, and troughs can be lengthwise or individual plastic or stainless steel troughs. We supply a combination of Biofix feeding systems.

**Classic pen system**

The Classic pen system is made from all-metal (stainless steel - zinc dipped or varnished) or partly plastic forms with walls made of plastic boards or all-wall panels. It is suitable for small and big groups. It is easy to split into different areas for feeding, lying and defecation.
FARrowing Pen

The basis of modern thinking is for farrowing without problems in the most hygienic setting, the easy removal of wastes and a guarantee of an optimal environment for piglets after birth until they obtain their own level of immunity. Preferred systems encourage the well-being of sows and piglets and allow for complete disinfection. Separating walls are made from large plastic boards with steel moulding and top pipe. We also provide heating systems, lairs, feeders and other accessories.

Farrowing pen Classic

This is an open farrowing pen with the possibility of expansion at the back and front. Made from plastic boards in steel frames or from fully plastic panels.

High farrowing pen

An ideal solution for rapid reconstruction or for use during building maintenance. We supply with plastic or stainless slurry tanks.

Farrowing pen Top

Luxury pen design with a closed cage on the top, with room to place information card. Constructed with a stainless steel, high-volume trough. The pen is made from plastic panels or plastic boards in a frame.
COMPONENTS FOR PIG STABLES

We also supply heating plates or lamps with holders, troughs made from stainless steel, ceramics or plastic concrete, drinkers, feeders for piglets that are suited for all pen types.

Pen Hygiene is provided by using top slats with different sizes for piglets and sows (plastic alt. steel or cast-iron). Sows and piglets must be able to move safely movement and be comfortable while lying without the fear of injury. Construction of pens makes in back part a slot 40mm for stripping extractions or we can install opening windows. We supply plastic and stainless steel troughs in the right shape size, in single or double versions for 2 pens.

Stainless steel drinkers for sows and piglets are installed on stainless adjustable hangings. Troughs can also be foldable. Farrowing pens must be in the right proportions and be warm and dry. That is why we equip most of our pens with lairs, where there is enough space for all piglets from the biggest litters. This provides for the perfect management of piglets, at the right temperature and dry.

We produce nests with removable plastic floors and electric or warm-water panel heating or lamps. Cages have super designed safe elements that offer enough of space for suckling without overlying of piglets.
**PENNING OF PIGLETS**

**CLASSIC PEN**
Simple pen constructed from plastic and metal (ladder) barrier, without nests.

**PENS WITH LAIRS (2-CLIMA PENS)**
So-called pens is excellent for ideal clima in pen. Due to it the section is only malleablized and higher temperature is provided in lair. The folding lair is made from a sturdy horizontal back part and stow-away front part. Combined with side panels made from plastic boards or from concrete, this provides a comfortable and quiet area without any draught. Lairs provide very quick return on investment by being both energy saving and hygienic.

**PENNING OF FATTENING PIGS**

BAUER pens for fattening pigs are simple, large and easily installed. Size, closing of gates to the full width of the pen gives enough space for handling and moving animals as well as the removal of slurry.

**COMBI SYSTEM**
Constructional system of steel ladder walls and plastic panels in all stables. Sides of the pen are made from long lasting plastic panels. Whether liquid feeding or dry feeding, ad-lib or restrictive feed – the system suits all.

**STANDARD SYSTEM**
Classic system from ladder welded walls with zinc-dipped screen. We can supply in combination with stainless steel columns.
Ventilation systems

**BAUER = Your specialist for quality stable microclimate**

**NEWS – BAUER ECSP-MICROCLIMATE MANAGEMENT**

ENVIRONMENTAL CONTROL IN PIG PRODUCTION – a complex technological system for quality stable microclimate using the best components.

**VENTILATION OF STABLES**

BAUER offers solutions for all types of stables and stabling systems that ensure optimal results for breeding. We are engaged in providing the ideal microclimate for pigs, because a high quality environment makes for better performing pigs.

We work with new terms like effective temperature (temperature that the animal feels) and THI (temperature-humidity index - it is always necessary to check temperature and relative humidity). BAUER ventilation systems are made from approved components for:

- ventilation
- heating
- cooling of microclimate

**PRINCIPLES OF DESIGN**

We know that a quality microclimate in pig stables has an influence on health improvement and breeding performance, especially reducing mortality and the use of drugs. As well as temperature and relative humidity control, we are engaged in the complex optimising of microclimate components. That is the way why we take into account:

- maximum ventilation/animal/hour
- minimal ventilation/animal/hour and its regulation during the cold seasons and in small animal housing
- standard ventilation during average temperatures
- speed of air flow in the animal zone
- number of air exchanges in a stable/hour
- quantity of harmful gases in animal zone

**TYPES OF VENTILATION SYSTEMS**

BAUER systems contribute to excellent ventilation without draughts thereby promoting better health in pigs. We supply vacuum, compressed-air and impulse systems. We also solve diffuse ventilation problems, ventilation over central corridors or under-grid ventilation. In principle it is possible to use the following ventilation systems:

**UNDERPRESSURE VENTILATION**

**CHIMNEY VENTILATION**

For classical stables especially for reconstructions. This involves an ideal and cheap system with supply valves in the form of polyurethane flaps or polypropylene windows (with the possibility of stable lighting) and air exit by chimneys in the roof.
CROSS VENTILATION
For narrow stables up to 12 – 15 m (for fattening pigs or pregnant sows but rarely for farrowing houses). This is a cheap and functional system, but is impossible to use a full cooling effect and regulate the exact homogeneity of air in the stable.

CORRIDOR VENTILATION (DUO SYSTEM)
Air supply is over a central corridor and from here into separate sections by wall gravity flaps (NEWS-patent!). These drain partly under grids and partly in chimneys or wall fans (regulated 0-100%). The advantage is the possibility to supply already heated or cooled air and quality regulation all around. It is an ideal system for farrowing and rearing houses.

DIFFUSIVE VENTILATION
Air supply is over a porous ceiling. It is the perfect system for low temperatures, ideally 22-25°C. For higher temperatures it is necessary to add a cooling system. It is possible to determine zones that require 100% air supply from zones which are need restricted ventilation.
**TUNNEL VENTILATION**
Tunnel ventilation is a combination of other systems and is very effective especially in the season of high temperatures and in areas with higher temperatures. Suction happens from above and exhaustion happens at the head of ventilators. In summer it is possible to add a cooling system in the other head of the stable. We offer a variation of under grid ventilation for the cold season.

**UNDER GRID VENTILATION**
Air outlet is from the space under the grids. It is perfect for combining with previous systems. The best results are then by using under grid ventilation up to 30-40% output with a classic vacuum system (for example tunnel).

**COMBI VENTILATION**
This is based on the combination above-mentioned systems. We divide minimal ventilation in cool seasons (wall vents or under grid ventilation and chimneys in the roof) or in the season of storage of piglets since the season of higher temperatures when it gets on the intensive system (mostly tunnel).
Ventilation systems

TRIO VENTILATION
Trio is based on a combination of minimal ceiling ventilation (ceiling inlet) during the cool season (and lower ventilation) and combined ventilation in the warm season (including cooling of entry air). It will be in future perhaps most perspective system.

NATURAL VENTILATION
This system uses shutters that are operated by servomotors. The advantage is the possibility of providing natural ventilation during power cuts. This is mostly used with a combination of above-mentioned systems.

ISOBARIC VENTILATION
In stables where there is no possibility of air supply through walls it is necessary to use a minimal under pressure system with air inlets and outlets by chimneys. On the inlets mixing heads can be placed.

OVER-PRESSURE VENTILATION
This system is used where other systems cannot be installed. Air is supplied from given zone by ventilators and is dissipated by gravity. This is suitable for systems with central temperature or air cooling.

FUNDAMENTALS BAUER VENTILATION:

- **We carry out minimal, so-called under-grid ventilation** – this system we can offer today cheaper than classic ventilation systems, with a greater degree of accuracy in air diversion. Air supply is over special gravity ceiling flaps.

- **Standard ventilation** will be classically implemented in chimneys or in walls by using wall-air-supply-valves.

- **For highest temperatures** we use so-called tunnel effect systems, where the increased speed of air flow cools animals. This has to naturally meet a number of conditions so that draughts are not caused.

- **In hot seasons of the year** (and maximum ventilation) it is necessary to use a combination with cooling system.
COMPONENTS OF VENTILATION SYSTEMS

EXHAUST AND INLET CHIMNEYS

BAUER supplies chimney sets in many variations for mounting ventilation systems with high output and low energy consumption. They have minimal pressure losses, are accurately controllable and with minimal noise. They are condensation proof and can be easily cleaned. Compared to competitors, we regulate chimney sets not only by ventilation speed, but by servomotor controlled input flaps. We supply chimneys made from polyurethane, polypropylene or PVC.

FANS

We offer classic axial asynchronous motor fans with an external rotor FC in outputs from 1.000 to 60.000 m³/hour. We supply motors inclusive extremely low-cost EC fulfilments. Both fulfilment Q – with square plate for an installation in the wall and fulfilment T – with fixing braces for an installation in chimneys.

Motor cover is IP54 according to EN 60529, category 2, thermal class F (+155°C) CZ-EN 60 034-1. A temperature sensor (TK) is installed in each motor. Ventilators are of the balancing static type and are dynamic. The storage is in special grease covered ball-bearings for a maintenance-free life which run very quietly. Ventilators are die cast aluminium with a square fixing plate for sizes FC040/045 which is made of high strength plastic (PS-TSG). For other sizes the square plate is zinc-coated plate equipped with double-barrelled plastic spray.

ADVANTAGES OF ASYNCHRONOUS MOTOR FANS WITH EXTERNAL ROTOR:

- robust construction
- high efficiency
- fluent voltage regulation from 0 to 100%
- very silent running
- easy construction, rotor with spatulas make an aluminium casting
- aluminium material provides optimal cooling of motor
**TECHNICAL SPECIFICATION AND PROPORTIONS:**

<table>
<thead>
<tr>
<th>Basic technical specification</th>
<th>Values of operating point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of fans</td>
<td></td>
</tr>
<tr>
<td>FC035-4E 2C3</td>
<td></td>
</tr>
<tr>
<td>FC040-4E 4C3</td>
<td></td>
</tr>
<tr>
<td>FC045-4E 6F3</td>
<td></td>
</tr>
<tr>
<td>FC050-6E 8B3</td>
<td></td>
</tr>
<tr>
<td>FC063-6E 8B3</td>
<td></td>
</tr>
<tr>
<td>FC071-6E 8F3Z</td>
<td></td>
</tr>
<tr>
<td>FC071-6E 8B3Z</td>
<td></td>
</tr>
<tr>
<td>FC073-6E 8F3Z</td>
<td></td>
</tr>
</tbody>
</table>

1) Rated current in working point of characteristic of fans without regulation.
2) Max. current at fan running with the voltage speed control
3) Value by head loss 30 Pa, without waste by speed control
4) Level of sound pressure on the outlet side in distance 7m, 450 in axis of fan

**Fans of construction Q without the protecting grid:**

<table>
<thead>
<tr>
<th>Art.No.</th>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>B1</th>
<th>B2</th>
<th>D3</th>
<th>D4</th>
<th>L</th>
<th>kg</th>
<th>Number of spatulas</th>
</tr>
</thead>
<tbody>
<tr>
<td>109557</td>
<td>FC040-4E 4C3</td>
<td>490</td>
<td>127</td>
<td>-</td>
<td>84</td>
<td>451</td>
<td>9</td>
<td>540</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>109548</td>
<td>FC045-4E 6F3</td>
<td>535</td>
<td>125</td>
<td>-</td>
<td>86</td>
<td>206</td>
<td>11</td>
<td>658</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>109730</td>
<td>FC063-6E 8B3</td>
<td>615</td>
<td>135</td>
<td>-</td>
<td>86</td>
<td>557</td>
<td>11</td>
<td>655</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>109601</td>
<td>FC071-6E 8F3Z</td>
<td>771</td>
<td>155</td>
<td>-</td>
<td>86</td>
<td>777</td>
<td>14</td>
<td>640</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>123442</td>
<td>FC091-6E 8B3</td>
<td>807</td>
<td>165</td>
<td>-</td>
<td>86</td>
<td>807</td>
<td>14</td>
<td>635</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>123444</td>
<td>FC091-6E 8F3Z</td>
<td>807</td>
<td>165</td>
<td>-</td>
<td>86</td>
<td>807</td>
<td>14</td>
<td>635</td>
<td>14</td>
<td>8</td>
</tr>
</tbody>
</table>

Quadratic plate Q by fans FC040/045/050 is made of plastic
Quadratic plate Q by fans FC063/080/FE071/091 is made of steel plate
Protecting grid is necessary to order

**Fans of construction Q with the protecting grid:**

**Fans of construction T for the installation in chimneys without the protecting grid:**

<table>
<thead>
<tr>
<th>Art.No.</th>
<th>Type</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>B4</th>
<th>D1</th>
<th>D2</th>
<th>kg</th>
<th>Number of spatulas</th>
</tr>
</thead>
<tbody>
<tr>
<td>109606</td>
<td>FC035-4E 2C3</td>
<td>120</td>
<td>114</td>
<td>33</td>
<td>86</td>
<td>353</td>
<td>9</td>
<td>485</td>
<td>7.8</td>
</tr>
<tr>
<td>109607</td>
<td>FC040-4E 4C3</td>
<td>137</td>
<td>126</td>
<td>33</td>
<td>86</td>
<td>353</td>
<td>9</td>
<td>540</td>
<td>10.4</td>
</tr>
<tr>
<td>109608</td>
<td>FC045-4E 6F3</td>
<td>142</td>
<td>135</td>
<td>33</td>
<td>86</td>
<td>353</td>
<td>9</td>
<td>540</td>
<td>10.4</td>
</tr>
<tr>
<td>109610</td>
<td>FC050-6E 8B3</td>
<td>148</td>
<td>147</td>
<td>33</td>
<td>86</td>
<td>353</td>
<td>9</td>
<td>540</td>
<td>10.4</td>
</tr>
<tr>
<td>109731</td>
<td>FC063-6E 8B3</td>
<td>150</td>
<td>157</td>
<td>33</td>
<td>86</td>
<td>353</td>
<td>9</td>
<td>540</td>
<td>10.4</td>
</tr>
<tr>
<td>109732</td>
<td>FC071-6E 8F3Z</td>
<td>152</td>
<td>167</td>
<td>33</td>
<td>86</td>
<td>353</td>
<td>9</td>
<td>540</td>
<td>10.4</td>
</tr>
</tbody>
</table>

109606  | FC040-083  | 137 | 126 | 33 | 86 | 353 | 9 | 485 | 7.8 |

www. bauer-technics.com
FANS FOR THE TUNNEL VENTILATION

<table>
<thead>
<tr>
<th>Ventilator 140, 1.5 HP</th>
<th>35,000 m³/hod</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilator APP 50 with conus</td>
<td>23,200 m³/hod</td>
</tr>
<tr>
<td>Ventilator APP 36 with conus</td>
<td>11,280 m³/hod</td>
</tr>
<tr>
<td>Ventilator APP 50 w/o conus</td>
<td>20,150 m³/hod</td>
</tr>
<tr>
<td>Ventilator APP 36 w/o conus</td>
<td>9,920 m³/hod</td>
</tr>
</tbody>
</table>

MIXING FANS

We use for optimal homogeneity of stable air all sorts mixing fans.

<table>
<thead>
<tr>
<th>Fan PCF 955</th>
<th>5500 m³/h</th>
<th>230 V/50 Hz</th>
<th>67x67x37</th>
<th>20 Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan PCF1455</td>
<td>8000 m³/h</td>
<td>230 V/50 Hz</td>
<td>67x67x37</td>
<td>22 Kg</td>
</tr>
<tr>
<td>Fan PCF-E</td>
<td>5500 m³/h</td>
<td>230 V/50 Hz</td>
<td>53x52x32</td>
<td>14 Kg</td>
</tr>
</tbody>
</table>

BIN-SHAPED FAN

| Spatulas diameter | 650 mm |
| Total diameter    | 780 mm |
| Air quantity      | 14,000 m³/h |
| Supply voltage    | 230 V |
| Current           | 3,3 A |
| Motor output      | 0,74 kW |
| Speed             | 870 min⁻¹ |
| Coverage          | IP 54 |
| Weight            | 19 kg |
| Regulace:         | Regulation by the help of transformer, electronic regulator with voltage control, if need be frequency transformer |

WALL INLETS

BAUER Wall inlets are the other pivotal component of ventilation quality.

We supply classical wall inlets controlled by servomotors and new gravity flaps with counterweights, this is mechanically regulated under pressure according to the fan traction without delay - typical for classic inlets. We supply them in polypropylene and in all sorts of output variations.

NEWS! Inlet controlled by under pressure in the stable = extremely accurate reaction VENTILATION SYSTEMS

www.bauer-agromilk.cz
POLYURETHANE INLETS

INLETS FOR THE TUNNEL VENTILATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>10Pa</th>
<th>25Pa</th>
<th>40Pa</th>
<th>Capacity in m³ by static pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>6000-VFG-2</td>
<td>11600</td>
<td>17500</td>
<td>23200</td>
<td>1500x800 mm</td>
</tr>
<tr>
<td>6000-VFG-3</td>
<td>17400</td>
<td>26250</td>
<td>34800</td>
<td>1500x1200 mm</td>
</tr>
<tr>
<td>6000-VFG-4</td>
<td>23200</td>
<td>35000</td>
<td>46400</td>
<td>1500x1600 mm</td>
</tr>
</tbody>
</table>

CONTROL UNITS FOR VENTILATION

New series of control units provide exact regulation of microclimate depending on age of animals, temperature and humidity of incoming air. It is possible to take control of ventilation, heating and cooling of microclimate. We also supply all sorts of standardized ventilation computer controllers and control sections across all price and operational requirements.

CB2000/CB2006/CB2600 Clima control unit

- Temperature and ventilation
- Growth curve
- Control of fans in 2 groups
- 24V-control for AQC-flaps
- 2 relay outlet for heating or 2 ventilators
- Communication with PC
- Ventilation control

CB 2000: 3 outlets 0-10 V
CB 2006: 1x fan outlet 230 V 6 Amp., 2x outlet 0-10 V
CB 2600: Central computer for control of fans and central exhaustion, control of heating
PCS8100/PCS8200/PCS8400/PCS8800 Climacom

- Clima computer for 1, 2, 4 or 8 sections
- Ventilation control over fans with feedback, input flaps, 2, fans, fans with gauging prop or AQC-Flap
- 7 growth curves/section
- Heating control continuous or on/off
- Hand control
- Alarm
- Communication with PC
- 230-V or 0-10 V fans control

MFC6x/MFC12x Ventilator regulator

- Easy operating
- Display for ventilation and temperature
- Control according to setting bandwidth and neutral zone
- Hand control
- Ventilation control in 2 groups
- Minimal ventilation without influence of fluctuations in net
- 230V fan output with 6 Amp and 12 Amp.

CB 3000

Top Clima computer with the following functions: check fan is running with or without gauging fan; check supply inlets; control of flaps in chimney; activation of 2 groups of flaps or fans; step control up to 6 groups of fans; control duo ventilation; control 2 heating systems; inlet of 4 heating and 2 humidity sensors; alarm; cooling.

CB 4000

News! The same computer as the CB 3000 with the ability to control water and feed consumption combined with perfect climate control in more groups.

SERVO-MOTORS

For operating all ventilation components we supply different sizes of servomotors.

EGM100 Servomotor 24V

EGM100 is a large motor of 20 Nm and towing force 1000N. Minimal and maximal positions can be set outside without opening up the motor and so the motor stays waterproof. Connector 24V is for opening flaps in an emergency.

EW-5, EW-12, EW-30 Electro winches

Motors have installed end positions and can be equipped with potentiometers.

EW-5: 35 Nm / 50 Watt  |  EW-12: 120 Nm / 250 Watt  |  EW-30: 300 Nm / 330 Watt

EW-30-2A, EW-40-2A Electro winches

For winding over toothed ridge. Motors have installed end positions.

EW-30-2A: 300 Nm / 150 Watt  |  EW-40-2A: 400 Nm / 180 Watt

ROTARY DRIVES

For regulating chimney and central flaps and supplies of heat transfer fluids.

ALARMS

They provide constant control in stables. All service interruption, temperature fluctuation etc. are immediately noticed and reported, for example, to a phone, pager, optical system or siren. A feature of the alarms is the new BAUER-AGROMILK camera system which can be control by the phone or internet.
Heating systems for stables

For making a quality microclimate in pig stables it is necessary to use quality heaters and decide the best positioning. We offer super BAUER heaters with less energy use, high efficiency, less noise and as low as possible air flow speed.

SPATIAL HEATING
(FOR FATTENING STATION, FARROWING HOUSE AND REARING HOUSE FOR PIGS)
DEPENDING ON PIG AGE WE INSTALL STATIONARY HEATING SYSTEMS

Gas box heaters BOXER / Gas box heaters PSI
Simple, highly efficient heaters. The standard output is 66kW, by PSI then 66kW, 18kW, or any heater between 66/18kW. We supply heaters either with a pilot light or a spark control computer.

Electric box heaters are excellent and dependable heaters with outputs of 3-18kW.

<table>
<thead>
<tr>
<th>Technical spec.</th>
<th>E 3</th>
<th>E 8</th>
<th>E 12</th>
<th>E 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output kW</td>
<td>3</td>
<td>4 / 8</td>
<td>6 / 12</td>
<td>12 / 18</td>
</tr>
<tr>
<td>Capacity m³/h</td>
<td>185</td>
<td>420</td>
<td>735</td>
<td>960</td>
</tr>
<tr>
<td>Temp. diff.</td>
<td>32</td>
<td>47</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>230</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Input</td>
<td>13,5</td>
<td>12</td>
<td>16,5</td>
<td>24,5</td>
</tr>
<tr>
<td>Length</td>
<td>300</td>
<td>530</td>
<td>640</td>
<td>640</td>
</tr>
<tr>
<td>Width</td>
<td>175</td>
<td>285</td>
<td>320</td>
<td>320</td>
</tr>
<tr>
<td>High</td>
<td>230</td>
<td>365</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Weight kg</td>
<td>6,35</td>
<td>15,5</td>
<td>20,5</td>
<td>23,5</td>
</tr>
</tbody>
</table>

ECO heaters
A new type of heater for natural gas, propane butane and oil. The Smartbox is for settings and fault diagnosis. Heating will be automatically rerouted in the case of blackout or gas fault - this is fully automatic.

- ECO Heater Natural gas 75 Kw 230V 50 Hz 1ph
- ECO Heater Propan Butan 75 Kw 230V 50 Hz 1ph
- ECO Heater Oil 75 Kw 230V 50 Hz 1ph
**Heater type Kanon**

Super heaters with indirect burning and with several levels of control. Air supply can be from outside the stable (minimal ventilation + heater will not carry dust and fundamentally decrease the fire risk).

Fuel oil heaters:

<table>
<thead>
<tr>
<th>Model</th>
<th>Output (Kw)</th>
<th>Voltage (230V)</th>
<th>Frequency (50–60 Hz)</th>
<th>Phase (1ph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFB 8</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFB 10</td>
<td>93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Propane, butane and natural gas heaters:

<table>
<thead>
<tr>
<th>Model</th>
<th>Output (Kw)</th>
<th>Voltage (230V)</th>
<th>Frequency</th>
<th>Phase (1ph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA 8</td>
<td>75</td>
<td></td>
<td>50-60 Hz</td>
<td>1ph</td>
</tr>
<tr>
<td>DA 10</td>
<td>97.5</td>
<td></td>
<td>50-60 Hz</td>
<td>1ph</td>
</tr>
<tr>
<td>DA 13</td>
<td>123</td>
<td></td>
<td>50 Hz</td>
<td>1ph</td>
</tr>
</tbody>
</table>

**Infra heaters**

These heaters are for heating larger rooms. The output is from 6 to 15 kW (type CB) for mounting in lower spaces (up to 2.4 m) or 12-75 kW (type LTU ne LTS) with mounting min. 3-6 m.

**AIR TEMPERATION**

*(FOR EXAMPLE IN SECTIONS)*

For an air temperation in entrance to sections are ideal registers or „pipe delta“. The output „Pipes delta“ is c. ... W/m, by Spiraflex is cca ... W/m

<table>
<thead>
<tr>
<th>Heating registers</th>
<th>Pipe delta</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ZONE HEATING**

*FOR HEATING ZONES WITH DIFFERENT TEMPERATURES USING HEATER PLATES, INFRALAMPS AND IR EMITTERS.*

**Infra-lamps**

We supply them in the fulfilment with cooler or in the fulfilment against dripping water. The light bulbs are red. They have originally solved connection between glass and screw part, it inhibits screw releasing. Glass part is fundamentally crack-proof. Service life is therefore longer than by common infra-lamps.

**Infra-emitters**

We supply version S with outputs from 0,88kW/h (S2) up to S4 and S8 (3,5kW/h). Type S has a standard stainless steel filter that is very easy to clean. The body is made from cast iron inside is a ceramic plate.
Heating systems for stables

**Type “M”**
We supply sizes M2, M3, M5 and M8 with outputs from 1 kW/h to 5kW/h.

**Type “G”**
New high-density infra-emitter with output approximately 12kW.

Floor electric heater plates
Our Hog Hearth system is a very low-cost system using groundsheets with a possibility of setting temperatures according to growth curve. Installed output is 65 W/pen. The area is 0.45 m². The plate is isolated and is made of laminated plastic.

Thermoplates TD 230 are intended for local heating within an area, mainly for heating animal bedding. The component NOMATERM is installed in the thermoplate - this is embedded in polyester and reinforced glass groundsheet.

- Nominal voltage: 220V 50 Hz
- El. Class of appliance: I.
- Coverage: IP64
- Weight: 4.5 kg

<table>
<thead>
<tr>
<th>size in mm</th>
<th>input</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 x 400</td>
<td>90 W nebo 110 W</td>
</tr>
<tr>
<td>1000 x 600</td>
<td>130 W nebo 150 W</td>
</tr>
</tbody>
</table>

Floor warm water plates

**Type IK 1** is a plastic groundsheet with stable water fill that is heated through a heating hose (it can also be electric).

**Type IK 2** is a groundsheet made of polymerconcrete, fully flow. The medium temperature has to be 43°C. The output is from 55 to 110 W.

FORMATION OF ZONES WITH DIFFERENT TEMPERATURES USING NESTS

We produce nests for farrowing pens and for piglet rearing houses. They can be folding or separate with 2-3 parts, alternatively with heated ceiling.
BAUER Cooling systems are an essential part of the formation of quality microclimates. By using these systems we achieve the near elimination of poor health and higher pig mortality. This can be seen by the percentage of pregnant sow increasing.

The development of Microclimate cooling systems by BAUER went from the viewpoint that every animal category needs to have a different system, taking account of the fineness of drops and the quantity of water that the air can hold. The decisive factor in this is the ventilation system in the stable and its capacity, where the ventilators and wall valves are located.

We use 2 methods to decrease temperature:

**BY INCREASING AIR FLOW**

BAUER ventilation systems increase the speed of air flow when required with extreme temperatures and thereby alter temperature perception and eliminate heat stress.

**BY DISPERSION OF WATER IN AGITATED AIR**

We offer a number of technically and differently priced cooling systems. The higher system requirements are where longer annual use or the amount of control is needed means it is necessary to use the highest pressure possible with finer jets. Fine jets have an output 0.05-0.8 litres/min; coarser jets usually have 0.5-0.8 litres/min. Temperature increases in normal conditions are up to 5 °C.

**BAUER TOP CLIMA**

BAUER TOP CLIMA 100-150 Pa high pressure systems are mostly supplied in installations with stainless steel pipelines and high pressure pumps suitable for fine water scatter, especially for use in poultry.

BAUER MICROSPRAYMATIC

Low pressure stationary BAUER MICROSPRAYMATIC spraying systems up to 60 Pa (PE pipeline joinable in common water distributions, coarser jets). By flow c. 25-35 litres/hour is the spray circle c. 1-2.5 m, i.e. the distance between jets is 2-5.0 m. These systems are attractive especially because of their low price. They are used when the temperatures are very high. The system is applicable in places where it is necessary to regulate animal defecation.
Microclimate cooling

**BAUER Cooling ventilator systems** are equipped with jets or spray heads on sides. They can work with low water pressures from pipes or with high pressures from pumps. Actual reach is 20-30 m. In addition they have positive effect on air circulation as well.

<table>
<thead>
<tr>
<th>HYGROFAN ROTATOR</th>
<th>HYGROFAN HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hygrofan rotator uses low water pressure (1-6 bar) and uses a rotating disc at the head that causes atomization of the water.</td>
<td>Hydrofan HP is intended for high pressure air diversion, pressurised to 120 bar. Air drops are very small so that it does not cause wet floors or other surfaces.</td>
</tr>
</tbody>
</table>

**Advantages:**
- Not difficult for water quality
- Low water pressure
- Regulation of water consumption
- Regulation of air output

**Advantages:**
- Higher water capacity
- Noiseless run
- Perfect mist (atomisation)
- Low energy requirement
- Can add disinfectants

**PAD CELLULAR SYSTEMS (BAUER PAD COOLING)**

These systems are available in several versions especially for stables with a central air supply or with tunnel systems. The advantage is the price; the disadvantage is that these systems cannot be used all year. We offer “close system” from UV stabilized PVC, where the surface of cellular plate moists and “open system” made of stainless steel components, where the jets moisten the surface of honeycombs and the function is better controllable. We work with the computing speed of air flow 1 – 1.5 m/sec. A part of this is a recycling bin for water. Lower trough has a capacity of 44.8 litres/m.
We offer a complete range of buildings, reconstructions and new buildings for immediate entry. Our project studio offers and we produce in our plants all steel constructions and atypical too according to your demands.

BAUER-AGROMILK light steel construction are intended first of all for the construction of light single-storied halls for industry, agriculture and building industries such as production and repair shops, storage units and garages. Main wing cell constructs clamped frame with jambs and tie beams from cylindrical profiles IPE, completed by purlins from hooped U profiles and pipe laterals. Modular system of the construction is very easy to install.

SHEETING AND COVERING OF STEEL CONSTRUCTIONS

It is possible to sheet steel scaffold with different roof and wall panels (sandwich panel, wooden or concrete panel, AL metal plate, zinc-coated sheet metal, etc.). The roof can be shouldered with panels up to a maximum weight 30 kg/m².
BAUER Slurry systems are a part of our product range for complex supplies of stable technology.

CLEARING SLURRY FROM STABLES

<table>
<thead>
<tr>
<th>Hydraulical systems</th>
<th>Hydromechanical systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAUER offer complete system of components for clearing slurry from the stable. It is a stopper system with T tee and plugs made of PVC, including pipeline up to 300 mm diameter. We design the whole system inclusive of channels so that it will be absolutely clean after draining.</td>
<td></td>
</tr>
<tr>
<td>BAUER produces scrapper shovels of different proportions and gearing – hydraulic, cable and chain.</td>
<td></td>
</tr>
</tbody>
</table>

SLURRY STORAGE

Basic option is to store the slurry in tanks. In cost terms over ground tanks are lower than imbedded tanks and easier to check for sewage outflow in subsoil. We build usually in steel (enamelled) or concrete tanks 3-10,000 m³. They are equipped with complete mixing and pumping systems. Another possibility is storage in earth basins. We have developed a new type with dual foil and a checking system that is fundamentally more stable and easier than pits.

Tank roofs:
Tank roofs are cheaper and its covering is easier too. For this purpose we offer roofing:

- floating (foiles on floaters)
- tent from a folie on a support (for tanks with big diameters)
- metal roof (for small diameter)
SLURRY PROCESSING

Basic processing of slurry is by **HOMOGENISING** before other processes or applications. An ideal variation is the **SEPARATION** of slurry as the first step. Separation decreases the amount of slurry for storage, sewage dry residue and it is not necessary to homogenise slurry too often. The packaged solid part is sold easily; it is composted or it is applied in other ways. We offer BAUER screw separators with outputs 8-15m3/hour. The dry matter output of the solid fraction is about 30-35% and the liquid fraction 1.5-2.5%. This liquid fraction can be cleaned using a centrifugal pump.

BAUER offer **biogas reactors** with a twin chamber system with ideal sewage flow. The reactor is either concrete or steel 2-shell-type heat insulated tank with permanent gravity circulation of the medium. The reactor has auto-hydraulic mixing of sewage. There are no mechanical parts such as mixers etc in the reactors. It is possible to process the substrate with high material concentration (sewage up to 12%). This treatment allows:

- Excellent safety when running
- Improving total biological effect
- High rate of organic degradation and high energy proceeds

SLURRY APPLICATION

We suggest basic slurry application using mobile tanks in 2 types: plastic and steel. The main advantage is the modular construction of the tanks, patent axle construction, accuracy and strength of adapters. We offer CARGO containers as well, where it is possible to choose containers with super 2-3 axle undercarriages – tank up to 29,000 litres, manure sowers, tipping lorries and high-capacity for silage, straw etc. Other systems include a belt-sprinkler for slurry application (BAUER Rainstar-Guellestar). The length of hose is to your requirements. We offer broadband sprinklers or consoles. It is one of the most effective treatments of application and watering.
Camera systems

We offer a new system for taking care of your farms, wireless data transfer and alarms.

**YOUR STABLES UNDER NON-STOP CONTROL!**

For lower price than the competition and also with the best components you can have a constant survey of what is happening in your buildings. By using the internet you can always check animal condition and other things. You can control cameras in buildings from your computer or your phone. For these systems we offer complete communication through the internet. We offer all net installation, alarms and computer systems.

- Velocity rotary camera 270°, with webserver + air-conditioned cover, 10 x optical zoom
- Velocity rotary camera 360°, with webserver + air-conditioned cover, 28 x optical zoom

Feed mills

We supply all sizes of farm feed milling equipment, including silos for corn and feed-stuffs. We also offer particular components – grinders, mixers, conveyors, weighing systems.
For your stables we supply all the components necessary for fulfilment of stable.

**AFTER MARKET = SALE OF COMPONENTS FOR STABLES**

**SLATS**

We supply plastic, steel or concrete slats for all categories of pigs.

**PLASTIC SLATS**

*Ultraflex system – plastic floor*

Unique modular system of slats for sows and piglets. Different designs, construction and materials make ideal combinations for animal comfort. Due to shapes is minimized the water consumption and purgation.

**NEW**

*Slats which are skid proof under sow heels*

Due to modular system is easy to combine plastic and cast-iron grids with full grids under troughs or in piglet lairs.

**CONCRETE SLATS**

We supply all proportions of concrete slats.

**Width 40cm**

<table>
<thead>
<tr>
<th>Length (cm)</th>
<th>Slot (cm)</th>
<th>High (cm)</th>
<th>Contact (cm)</th>
<th>Weight (kg/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>1.8/2.0</td>
<td>5</td>
<td>8.2/8.0</td>
<td>130</td>
</tr>
<tr>
<td>90</td>
<td>1.8/2.0</td>
<td>5</td>
<td>8.2/8.0</td>
<td>130</td>
</tr>
<tr>
<td>210</td>
<td>1.8/2.0</td>
<td>8</td>
<td>8.2/8.0</td>
<td>140</td>
</tr>
<tr>
<td>220</td>
<td>1.8/2.0</td>
<td>8</td>
<td>8.2/8.0</td>
<td>140</td>
</tr>
<tr>
<td>230</td>
<td>1.8/2.0</td>
<td>8</td>
<td>8.2/8.0</td>
<td>140</td>
</tr>
<tr>
<td>240</td>
<td>1.8/2.0</td>
<td>8</td>
<td>8.2/8.0</td>
<td>140</td>
</tr>
<tr>
<td>250</td>
<td>1.8/2.0</td>
<td>8</td>
<td>8.2/8.0</td>
<td>140</td>
</tr>
<tr>
<td>260</td>
<td>1.8/2.0</td>
<td>8</td>
<td>8.2/8.0</td>
<td>140</td>
</tr>
<tr>
<td>270</td>
<td>1.7</td>
<td>8</td>
<td>8.3</td>
<td>140</td>
</tr>
</tbody>
</table>

**Width 50cm**

<table>
<thead>
<tr>
<th>Length (cm)</th>
<th>Slot (cm)</th>
<th>High (cm)</th>
<th>Contact (cm)</th>
<th>Weight (kg/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>1.8/2.0</td>
<td>7</td>
<td>8.2/8.0</td>
<td>130</td>
</tr>
<tr>
<td>200</td>
<td>1.8/2.0</td>
<td>7</td>
<td>8.2/8.0</td>
<td>130</td>
</tr>
<tr>
<td>140</td>
<td>1.3</td>
<td>6</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>1.3</td>
<td>6</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>1.3</td>
<td>6</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>170</td>
<td>1.3</td>
<td>6</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>180</td>
<td>1.3</td>
<td>7</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>190</td>
<td>1.3</td>
<td>7</td>
<td>8.5</td>
<td></td>
</tr>
</tbody>
</table>

**NEW!**

Slats with concrete surface
Slats with rubber surface
Ideal for farrowing house in the place of hands and for raw healing.
FEEDING TROUGHS FOR PIGS
Feeding troughs are made exclusively from Methylmethacrylate (Acrylglas) with all sorts of excellent characteristics. They are absolutely trouble free.

STAINLESS STEEL AND PLASTIC TROUGHS BAUER
We supply all types of troughs from 12 litres up to high-density stainless steel 52 litres. Troughs can be swivelled.

PLASTIC WALLS
We supply systems of cross unions from panels that are easy to install and are washable.
DRINKERS

Drinkers 1/2”-3/4” for piglets, sows and pig fattening. Length for piglets: 65mm (400ml/min); fattening: 75mm (700ml/min) and sows or boars: 80 mm (900ml/min).

Drinkers in trough with flow up to 8 litres/min with outer and inner thread

Drinkers in trough 1/2”

Bowl for feeding for piglets 2 and 3 litres with hook for gripping in grids.

Medicator: 0.1 bar - dosage 0.2-2.5% 1-5% and 1-10%

Height-adjustable holders for drinkers

Clamp drinkers for piglets up to 15 kg.

Clamp drinkers

High-capacity silos

For grain storage we offer silos up to a capacity of 20,000 tonnes in several categories according to metal plate strength. We use plates that are the largest in the world. Types available include drying by cold or heated air, perforated floors or transport systems.
TENTO PROJEKT JE SPOLUFINANCOVÁN EVROPSKÝM FONDEM PRO REGIONÁLNÍ ROZVOJ A MINISTERSTVEM PRŮMYSLU A OBCHODU ČR

TECHNICAL CENTER TÁBOR
Komenského 1864
390 02 Tábor
tel.: 381 251 314, 381 251 083
fax: 381 251 313
e-mail: baueragromilk@b-a.cz

PRODUCTION PLANT
Stádlec 12, 393 62 Stádlec
tel.: 381 791 211
fax: 381 881 327
e-mail: bauer_stadlec@mbox.vol.cz

www.bauer-technics.com