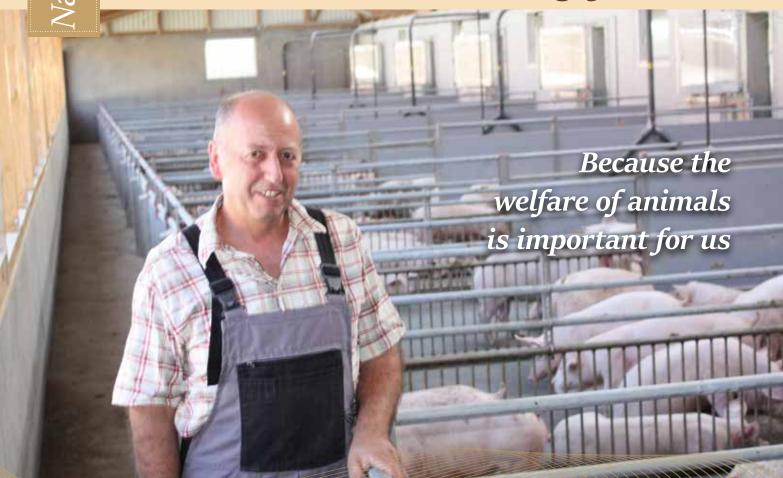
## Pig farms







For more animal-friendly, innovative and economically viable pig farming

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## Nature Line animal welfare stable





There is a high demand for more animal friendly premium systems for pig breeding and fattening houses. A lot of investment subsidy programs in Europe support the construction of appropriate stables, which offer more area for animals and more solid or partially slatted floor area.

#### **Premium Housing - Premium Sales**

Numerous premium meat brand programs offer contractual agreements with a higher, quaranteed meat prices for farms that adopt improved welfare systems. This significantly improves the economic viability of such husbandry forms.





We offer innovative and ideal solutions for conventional farms and organic farms with options for providing outdoor areas for pigs. We offer a professional; and functional design both for conventional systems to higher welfare and alternative pig farming systems with proven concepts.



## Animal friendly housing Fresh air Higher performances

Animal welfare and environment protection are future-orientated values not only for us in the agriculture, but for entire society.

Appropriate feeding and animal friendly housing systems are essential for human and animal sustainable living together.

SCHAUER fulfills these requirements with the NatureLine concept.

Moreover NatureLine concept saves energy and produces higher performances.

The needs of the Consumer, Animal, Environment and Farmer are all addressed.

The Future of Animal Welfare!



6

## Animal welfare farrowing stables





There is the right solution for appropriate housing of sows during and period farrowing following suckling for every farm. More space available for sows & piglets and the accessibility and safety take centre stage in the operator NatureLine farrowing pens.



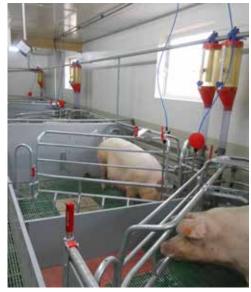


- CombiBox: Crate for piglet safety with the possibility to open
- **BeFree:** Free farrowing pen with the possibility for fixing
- WelCon: New standard for organic pig farms – for free farrowing without fixing at farrowing
- "Welser" farrowing pen: outdoor stable solution with lying zone - for free farrowing without fixing at farrowing – for organic farms

12 Stk. Welcon-Abferkelbuchten IST-Liegefläche = 8m²

## **Pro-SAU** and new farrowing system







#### Vital and healthy sows and piglets

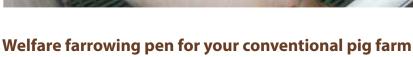
The Austrian Ministry of Agriculture and the Ministry of Health have commissioned the project "Pro-SAU" in the autumn of 2013. The aim of the project is to develop the alternative methods or to adapt the existing farrowing pen systems in the interests of animal welfare. Particular attention is paid to the high functionality as well as to the critical life phase of the suckling piglets and the resulting fixing duration.

The minimum size of the farrowing pen area should be 5,5 m<sup>2</sup> in accordance with the requirements in Austria in the future.

CombiBox farrowing pen was developed by Schauer for the project "Pro-SAU" and is being successfully used in the research institutuions and farms.

## CombiBox farrowing pen





CombiBox farrowing pen is the successful combination of the improved animal welfare with the guarantee of the human and newborn piglets safety - in your usual operation mode.



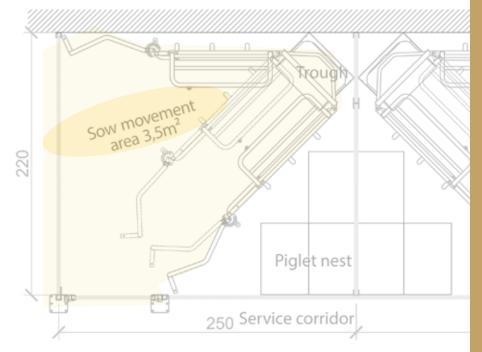
- Minimum size of the CombiBox area is 5,5 m<sup>2</sup> (2,2 m x 2,5 m)
- · Straight and diagonal positioning, especially fits well also for reconstructed buildings











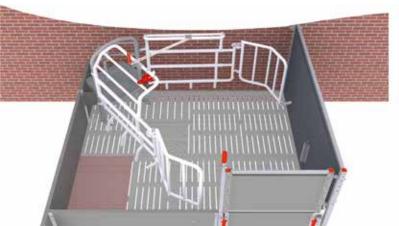
#### **Advantages of the CombiBox**

- Optimal overview of trough and piglet nest from the service corridor
- Easy accessibility for farrowing assistance
- Flooring system: especially for farrowing developed hybrid concrete slats or plastic-casting iron-concrete combination
- Pen height: 50 cm or 110 cm
- Crate is easy to open and close with a lever from the piglet nest – it is not required to enter the sow zone
- Specially developed safety bar for piglets protection





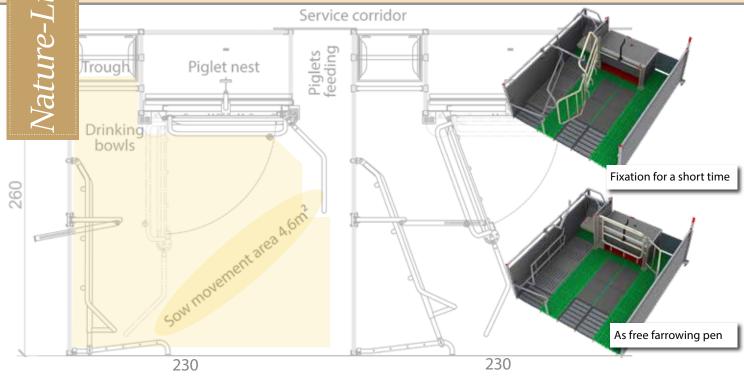






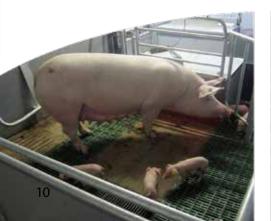
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## BeFree free farrowing pen



#### Maximum of animal welfare and labour efficiency with a minimum of material input

Due to the unique patented geometry of the 6 m<sup>2</sup> farrowing pen it is possible to provide a sow with 4,6 m<sup>2</sup> area for movement. Specially designed swivel bracket allows a short-time fixation of the sow for the safety of newborn piglets.











- Maximum freedom of movement for the sow
- Short-time fixing possibility, maximum people protection due to the swivelling separating grid with a function of sorting panel
- Well developed and tested piglet nest with cover and possibility of closing for a comfortable warm rest and retreat zone for piglets







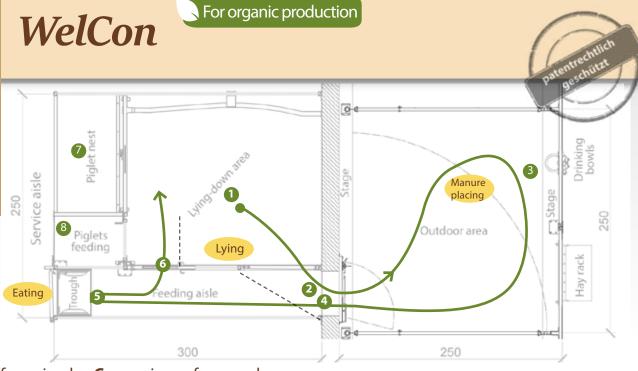
"We think, our sows enjoy it too!"

### Opinion of the customer, family Rapperstorfer

"We are pleased with the system very much. In spite of all fears of the outsiders we had no experience with the higher losses due to the crushing piglets to death, aggressive sows etc. It depends also always on the attitude of the persons, who work with it, if it is positive, it works."

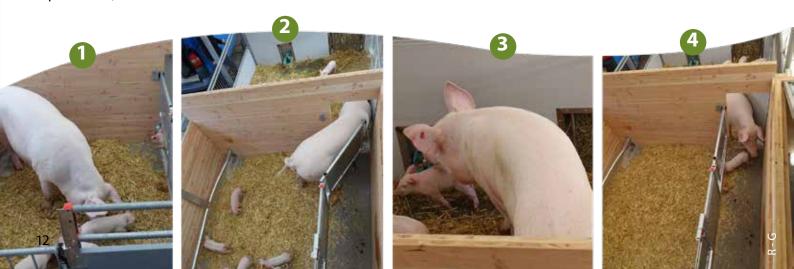


http://nature-line.com/abferkeln/abferkelbucht-befree/



#### Welfare for animals - Convenience for people

WelCon farrowing pen is clearly separated into the functional zones for feeding, lying and manure placing. The sow reaches 50 cm wide feeding corridor only from the outside. It gets to the lying area through the side door of the feeding corridor. In the lying area are also located a piglet nest and a feeding zone for piglets. If the sow pushes the exit door outwards, it gets to the outside area. In the feeding area the sow can be fixed for a short time (personal protection).





The piglet nest, the feeding trough for the sow and the piglets feeding zone can be comfortably reached from the service corridor. It is easy to fix the piglets for treatment purposes with one simple manual action.

Developed together with the Institute for Biological Agriculture Raumberg Gumpenstein

## Prefabricated house for organic pig farming – turnkey

NEW



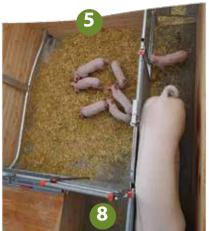
Detailed information to the project:





http://nature-line.com/abferkeln/freilaufbucht-welcon-bio/



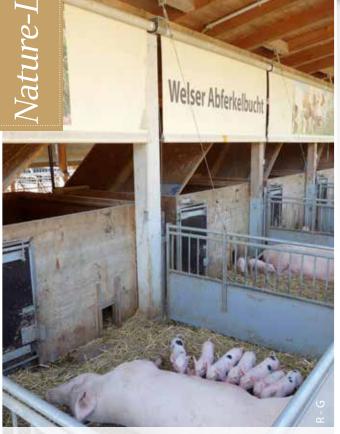






## "Welser" farrowing pen

For organic production



Well-being for the sow and piglets!

#### Free farrowing in the outdoor stable

The key element of the "Welser" farrowing pen is the farrowing box with 2,0 m x 2,2 m in size. As the farrowing pen is located entirely in the (mostly roofed) outdoor area, the box is made of three-layer panels (58 mm) and covered with a lid of the diffusion-open material during a cold season. Attached to this piglet nest provides with 1,1 m<sup>2</sup> place for all piglets during the 6-week suckling period and due to the lid heating - optimal temperature control.

Developed by the Institute for Biological Agriculture Raumberg Gumpenstein



Farrowing box and piglet nest



Sow and piglets in the lying area



Hay rack in the outdoor area



## Group suckling system





The group-housing of the lactating sows, also called group suckling, is based on the natural behaviour of the pigs. From the third (better fourth) lactation week the groups of max. 4-5 sows are kept in the one large, if possible, unstructured pen until the end of lactation. To make group suckling work the farrowing dates of the sows must not be further than 5 days from each other. The minimum lying area shall be approx. 3,5 m<sup>2</sup> per sow. Farm size: from approx. 40 sows.





#### **Advantages:**

- Sows and piglets are already grouped less stress of the animals
- Cost-effective system, because only a common piglet nest is needed and the joint use of feeding and drinking equipment is possible

#### Requirements

Higher animal management skills are required

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### Service area and gestation





The sows are more comfortable and relaxed, when they are kept in groups. In the loose-housing stable they have complete freedom of movement. There is no stress when eating due to the Compident ESF system.

- For stable and dynamic sow groups
- Individual feeding of dry / wet feed due to the reliable animal identification with ISO or Allflex transponder
- Flexible use in the new and existing stables on the straw, partially slatted and perforated floors
- Automatic selection makes animal management easier
- Optional with animal weigh scale for individual feeding according to the animal's condition
- Simple sow and feeding management with Topo feeding computer



#### **Optimal solution for your sow** house

Compident Topo was designed for working at a desk in the stable office and provides comfortable operation. Due to the modern interfaces the remote control and maintenance via the internet are possible.

Pig Manager Mobile: Suitable for use in the stable, this hand-held terminal provides mobile stable management.

**Smart Control:** Remote control of the station functions via smartphone or tablet PC (Android - App)



#### 2 zones pen / free access stalls

The sows eat and lie in the min. 65 cm wide self-locking stalls. If they are equipped with a rocker attachment for allow individual sow treatment, they can be optimally used also as the insemination stalls. Behind these is an activity area, which can be also used for placing the manure!



#### 3 zones pen

For organic production

Here is a 50 cm wide feeding stall, it can be placed either inside or in the outside area. There is an activity area from the rear, which is used for placing the manure. There is an extra lying area as the third zone.



#### Feeding place divider

Optimal for stable small groups of sows





### **Box - typed crate** for service and waiting pens

Space-saving solution, maximum moving area for the sow with the opened crate

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## Low-emission animal welfare stable





New patent-pending concept of the fattening house is a successful balance between consumer demands for more animal welfare and better environmental emissions and pig farmers requirements to embrace labor saving housing systems and remain economically viable while addressing the consumer concerns.. Almost all "building bricks" of the concept are taken from practice and have been proved over decades. At first the symbiosis with NatureLine general concept makes a stable so successful.





NatureLine is the concept for now and for the next generations.

- Animal welfare piglet rearing for conventional or organic farms
- Animal welfare fattening stable for conventional or organic farms

## Breeding barns for piglets





The classic, very functional version of the piglet breeding barn is the one with division into 3 zones for lying, eating and activities. Especially comfortable microclimate zone is created due to the covering of the lying area and hot water TwinPipe heating or floor heating. The eating area is joined to the lying area, it has also continuous solid floor. Animals are fed at the sensor trough or automatic dry feeders. The activity area, which is used for placing the manure, is equipped with the triangular or cast iron slats, grid walls and drinking equipment.



Cold housing

For organic production

Lying

Lying

Fating and activity

areas outside

For organic production

Thermally-insulated lying area

with the cover inside

There is both a thermally-insulated lying area and an outside area in the breeding barn for cold housing of piglets. Depending on the construction of the building the feeding place can be either inside or outside.

## Low-emission fattening stable for animal welfare

#### **Functional zones**

In this approach **the lying area** is located in the thermally-insulated inner area. There are uncovered pens for resting in this zone where a little amount of straw is spread out. Thus the pens for resting can be quickly and easily controlled by the operator. A minimal amount of straw is distributed in the

resting pens. The recommended minimum amount of dropped straw is 0.05 kgs per animal per day and most of this will be eaten. Extra straw can be delivered as required by the automatic straw bedding systems such as Strohmatic bedding system or Spotmix Welfare system. Adjustable walls of the pens provide the animals with as much space as they need according to their weight. Thus unnecessary space is avoided and there is no dirt in the pen.

**In the fully roofed outdoor area** are the feeding and manure zones. The outdoor climate prevails there. The pigs get to the outdoor area through a door. There is a solid floor in the feeding zone and perforated flooring in the manure zone. Adjacent to the manure zone is an inspection gangway. According to the biosecurity regulation it has a double fencing.

The outdoor area is equipped with an insulated roof to protect from excessive temperatures (acc. to VDI 3894/1 up to 33 % of reduction potential for emissions). Furthermore, the side walls are fitted with the sliding wind protection nets during cold and wet seasons.

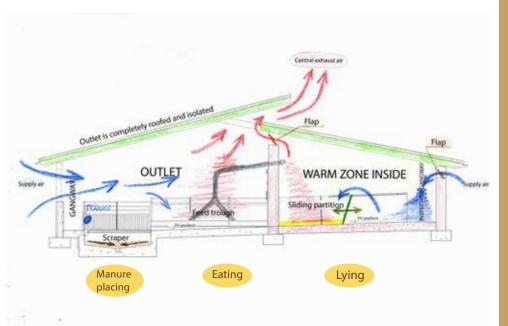






It starts with the animal-feeding place ratio of 1:1 **in the feeding zone**. This results in the finishing period the ratio of 1:2 if the long troughs are provided for. For the purpose of the emission reduction as a feeding system is recommended a multi-phase feeding, such as Spotmix (acc. to VDI 3894 up to 40%). But in the same way the automatic feeders with long troughs (dry or mushy) or liquid feeding can be used.

**The dunging zone** is equipped specially with partition grids, drinking system, slatted floor with the underfloor scraper manure-removal system and equipment, which provides the possibility of partial separation of liquids and solids. Due to the innovative pen division into the narrow and deep functional zones the animals typically dung in the designated manure area thereby reducing the labor requirement for the operator.







#### Airflow:

Supply and exhaust air flows are conducted due to the eaves-to-ridge ventilation in both inside and outside. The inside area is equipped with the temperature-controlled supply and exhaust air flaps.

This overall concept provides, that the entire stable doesn't need a forced ventilation, and thus, only operation and control of the regulating flaps is necessary. This not only saves enormous energy costs, but also allows, that no animal losses need to be feared in case of the energy failure.

## Low-emission fattening stable for animal welfare





#### **Emission reduction measures:**

With our new concept we try to reduce the emissions closely at source. The following already scientifically proven reduction possibilities (acc. to VDI, French and Canadian research institutes) are included in our concept. The following listed measures are individual and independent of each other (cannot be added together). In order to determine the actual reduction potential, the investigations are currently being conducted in Austria and Germany.

Feeding, multi-phase feeding Spotmix: Reduction potential up to 40 %

#### Construction of a building:

#### Reduction potential up to 33 %

Acc. to VDI 3894/1 the emission reduction of up to 33 % can be estimated for an outdoor pig housing facility, despite the diffuse emission sources, which are near the ground (isolated roof covering in the outlet).

**Reduction of the emitting area:** 

Reduction potential up to 10 %

#### Special scraper manure removal technology: Reduction potential up to 56 %

The source materials for the formation and release of ammonia are nitrogen compounds contained in the manure and urine. The urea contained in the urine is converted into the ammonia due to the enzyme UREASE contained in the manure. Due to a rapid separation of urine and solid manure in the manure zone through the urine drain and frequency manure removal with underfloor scraper the formation of ammonia is significantly reduced.



#### All advantages at a glance

- Optimal animal comfort
- Good air quality due to the combination of the different emission reduction measures
- Better animal performance (daily weight gain and better feed conversion)
- Better animal health (less respiratory disease)
- Long tails are possible
- Bedding can be automated
- Moderate investment and low operating costs (no forced ventilation)
- · Little labour input compared to other systems
- Flexible use of all feeding systems (dry feeding, liquid feeding or Spotmix multi-phase feeding)
- Production of premium meat to achieve a premium price



"Because the welfare of animals is extremely important for us!"



#### Opinion of the customer, family Gelb

"We are very happy with the system. It gives us the feeling, that we are doing the right thing in the pig production for the future."



http://nature-line.com/referenzen/gelb/

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### Outdoor area details



Animal-friendly and labour-efficient structure of the outdoor area for pigs



Roughage feeding



Exit door



The flexible partition between stable during construction of the outdoor king bowls are, there the manure and urine will be dropped too. Thus the outdoor area is an optimal place for this. The bowls are placed on the outer wall and installed so that they are protected against frost.





## Spotmix Welfare system for bedding



## Spotmix Welfare – for happy and productive animals and high savings of labour time

Spotmix Welfare – automated supply of materials to root and manipulate for satisfied and more productive animals. With Spotmix Welfare the chopped straw, sawdust or pelletized materials for bedding and rooting in the quantities required can be distributed both on the pen's areas for resting and into the dispensers for materials to root.



## **Strohmatic** - automated system for bedding





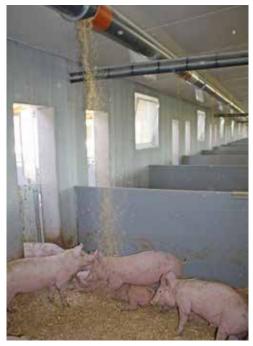


Better health of animals due to the fully automated dedusting!





With Strohmatic, automated system for bedding, the square and round bales are automatically unravelled, chopped and, at the same time, distributed in the stable. It improves also the fresh straw and well-being of pigs. The prepared straw serves as bedding and material to root for pigs.



#### You may rely upon it!

- **Time-saving:** Automatic bales unravelling
- **Cheaper:** Suitable for big bales, usage of own straw
- Healthier: Better animals' health due to the fully automated dedusting of bedding
- **Safe:** Temperature control and spark detection