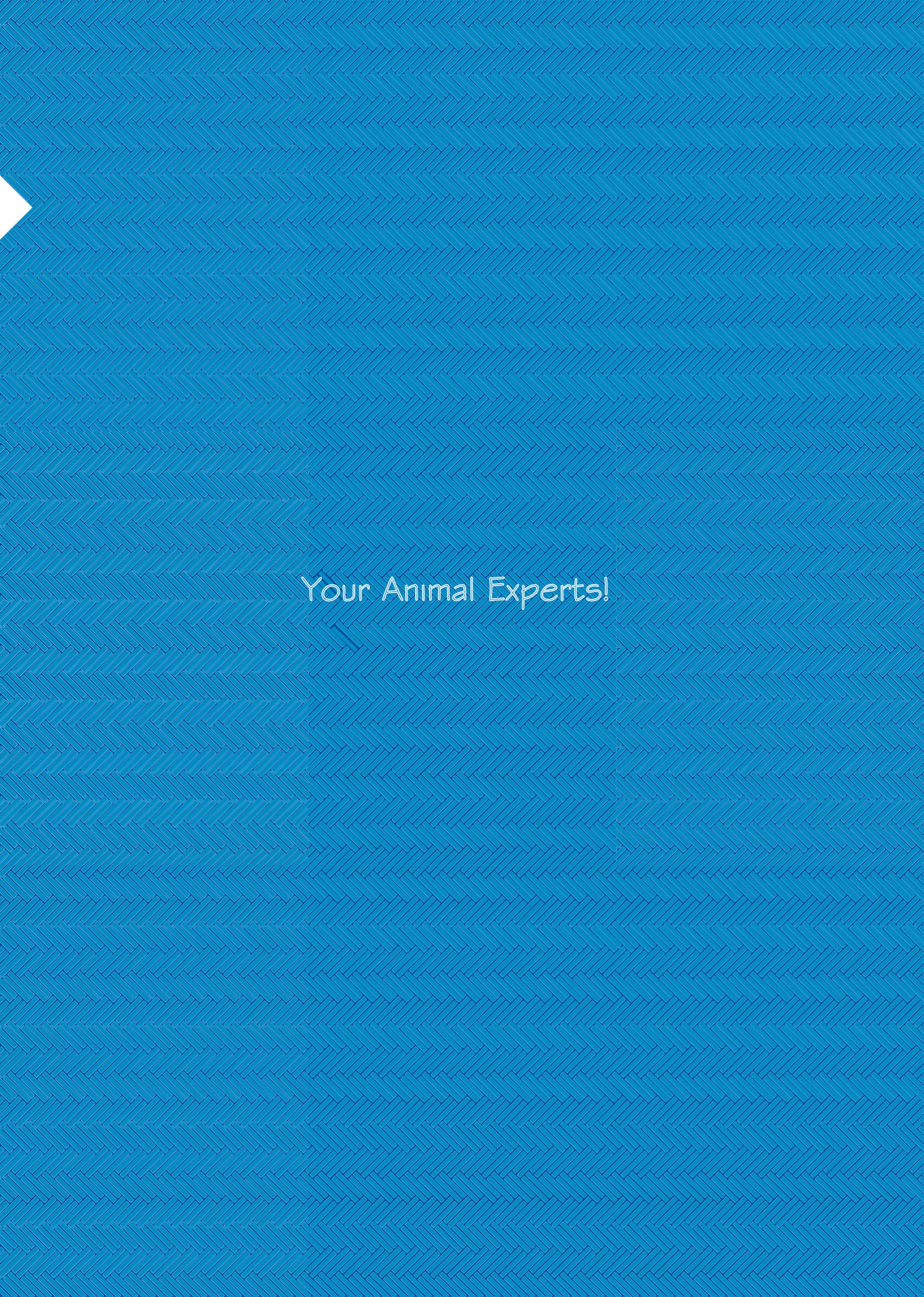
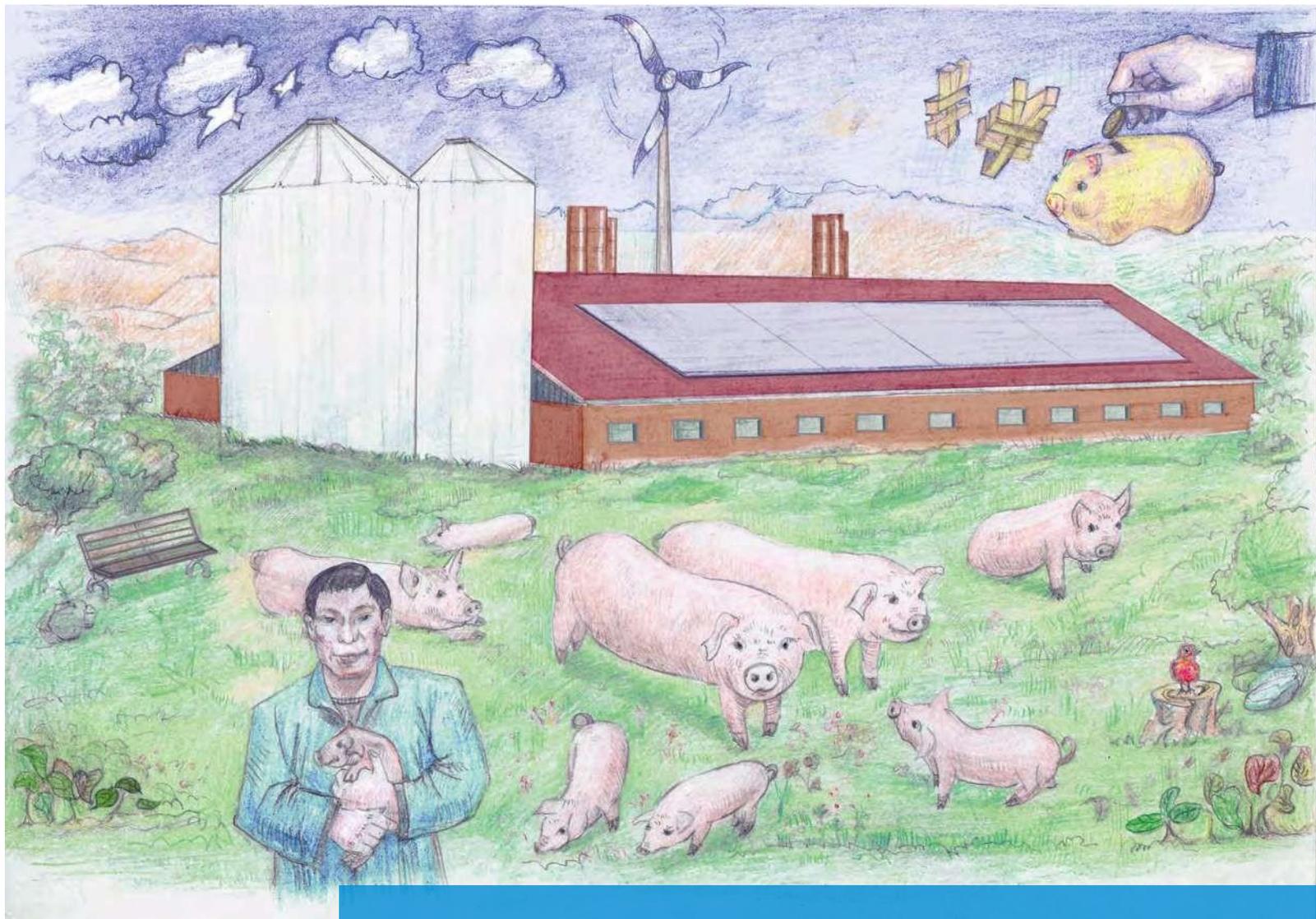


The Modern Pig Farm EPC Project Solutions

- > Site Selection
- > Planning and Design
- > Engineering Construction
- > Equipment Manufacture, Processing, Installation and Commissioning
- > Management Training
- > Technical Service



Your Animal Experts!



Our Business Scope



Design and construction



Supporting equipments



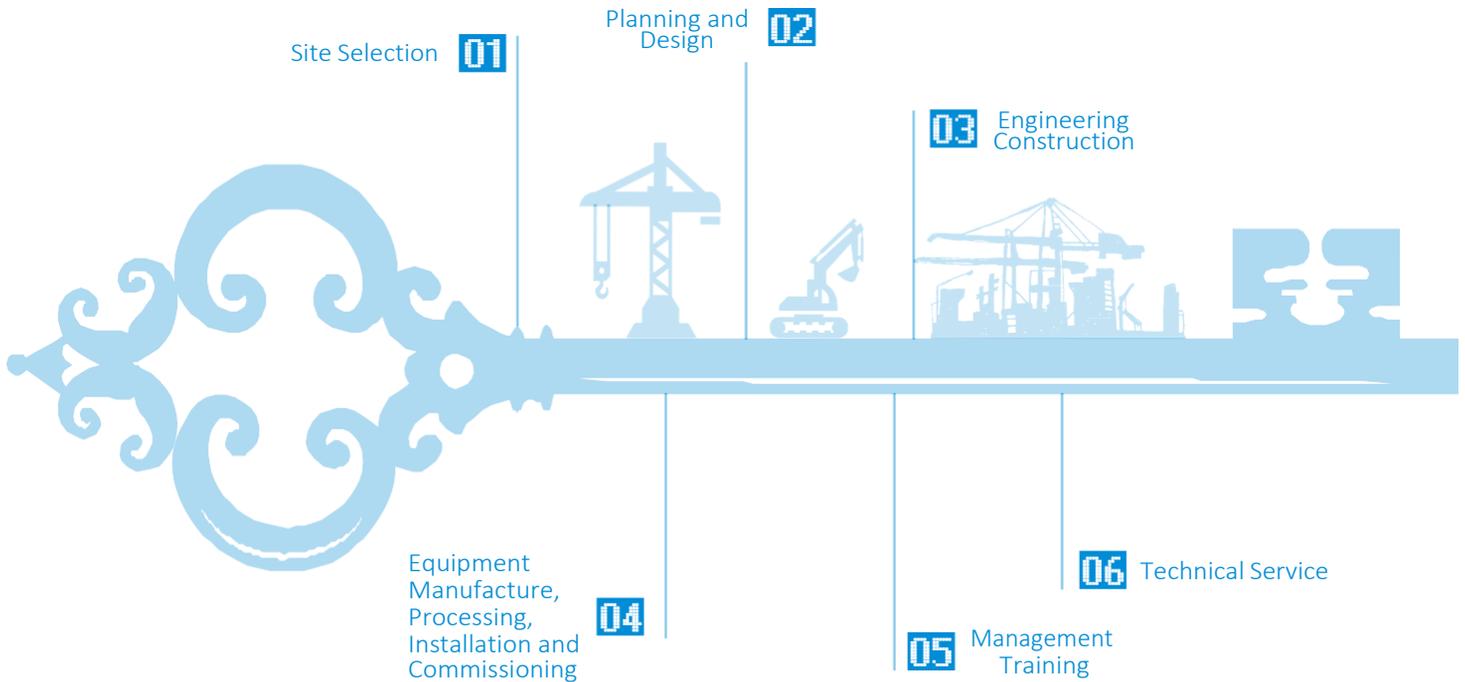
Comprehensive treatment of manure



Design and construction of agriculture and livestock ecological garden

EPC projects of modern pig farm

Our company provides our clients with complete EPC (or “turn-key”) project solutions for modern pig farms, which include site selection; planning and design; equipment manufacture, procurement, processing, installation and commissioning; management training; technical service and etc. The “turn-key” project eliminates unfavorable factors like management difficulty and construction time delay caused by intersection of different trades. Our solutions can shorten the construction time, lower the investment risks and save the cost. Meanwhile, “turn-key” project is a necessary measure in modernized pig farm construction, because all the construction procedures are closely connected, and only integrated systematic solutions can fundamentally increase the productivity of pig farms.



A Brief History of fiingpeng’s “Turn-fiey” Project

EPC Project v5.0

Management by Objectives Method Design + Technical Planning & Design + Welfare Floor System + Environmental Control System + Stall Facilities + Electronic Sow Feeding Station(ESF), Pig performance testing station(MLP) + Automatic dry feeding system, Automatic liquid feeding system + Drinking and spray System + Comprehensive Manure Treatment System(Slurry Cleaning –Biogas Project – Solid/Liquid Separation –Manure Storage –Organic Fertilizer Manufacture– Integration of Planting & Breeding) + New Energy Utilization + Professional Technical Service System

2011-2015

EPC Project v4.0

Technical Flow Design + Stall Facilities + Environment Control System + Feeding System + Manure Treatment System

2009-2011

EPC Project v3.0

Technical Flow Design + Stall Facilities + Environment Control System + Feeding System

2007-2009

EPC Project v2.0

Phase Design + Stall Facilities + Environment Control System

2005-2007

EPC Project v1.0

Design + Construction + Stall Facilities

2004-2005

01

Pig Farm Planning and Design

02

Pig Farm Construction

03

Environmental Control System

04

Automatic Dry Feeding System

05

Liquid Feeding System

06

Electronic Sow Feeding Station
(ESF) & Pig Performance Testing
System (MLP)

07

Stall System

08

Comprehensive Manure
Treatment

Manure Discharge System

Separation System

Biogas Project

Organic Fertilizer Manufacture

Manure Storage

09

Welfare Floor System

10

drinking and spray System

11

Photovoltaic Building of Pig
Farm

12

Successful Projects

Contents

Pig Farm Planning and Design

Technical Planning and Design of Pig Farm

The technical planning and design of pig farm is the core of pig farm systematic construction. It integrates production techniques, logistic planning, breeding management, epidemic prevention and quarantine checks, and is the premise of an effective and smooth operation. Our company provides our clients with integrated systematic and standard solutions based on different climate environment, breeding variety, and management pattern.

◆ Master Plan of Technical Design

Technology description

1. Breeding technology-- Perennial breeding, balanced production on batches, all in all out, phase feeding;
2. Feeding technology—all automatic dry-feeding system, ESF sows station for;
3. Ventilation technology—all automatic ventilation system. In summer, the mode is longitudinal ventilation, cooling pad and fans are used; In winter, spring and autumn, use ceiling inlet and wall outlet, or ceiling inlet and roof exhaust chimney;
4. Sewage discharge technology--mixed slurry and siphon piping system;
5. Matched with manure treatment and bio-gas equipment.



- ① -Mating house for early period gestation
- ② -Mating house for latter period gestation
- ③ -Farrowing house
- ④ -Nursery house
- ⑤ -Fattening house
- ⑥ -Manure handling area

◆ Photos and Rendering



<< Xiangcun 1200 sows farm in Beijing



<< Heshuo 2400 sows farm in Xinjiang province



<< Meishuo 5000 sows farm in Shandong province

Dongheng 3600 sows in Yunnan province >>



Xiangxi 1800 sows farm in Hunan province >>



Jiangquan boar station in Shandong province >>



Construction Design

The construction design of pig farms include: architectural design, structural design, and MEP design. Our Global Husbandry has related design and construction qualifications. We can provide economic and reliable construction designs for various scale of pig farms. Our target is to build satisfactory pig farms for our clients with savings on materials, labor, investment and time.

◆ Architectural Design of Pig Farms

The architectural design of pig farms includes drawing and document presentations of pig farm's technological and architectural planning. And it serves as the reference for material preparation, construction organization and cross-trade cooperation. It plays an important role in terms of budget control and project management.

◆ Structural Design of Pig Farms

The construction drawing is the construction guidance from engineers, communicating directly to construction workers and related technical staff, and is drafted based on certain regulations. The structural construction drawings for pig farm include the above-ground structural design and foundation design.

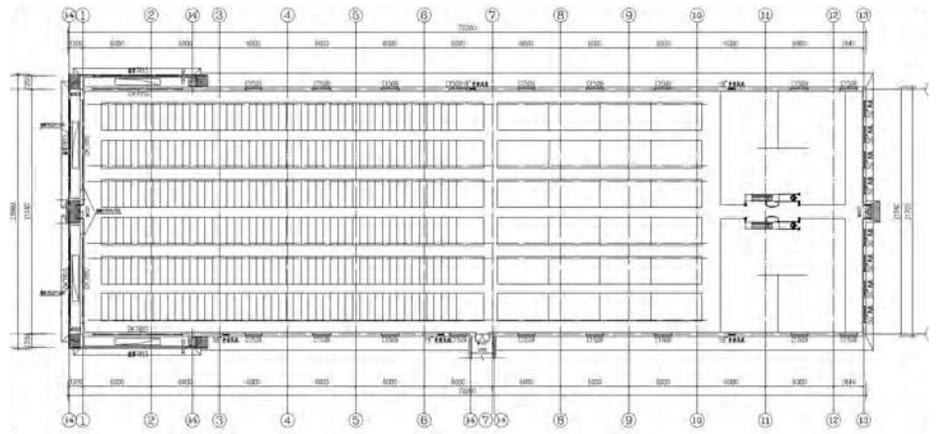
The above-ground structural design mainly includes frame structure, shear wall structure, frame-shear wall structure, frame-core structure, core-in-core structure, block structure. Reasonable and scientific considerations should be taken in column design, beam design, concrete grade, stair design, and anti-seismic design.

◆ Water, Electricity and Heating Design of Pig Farms

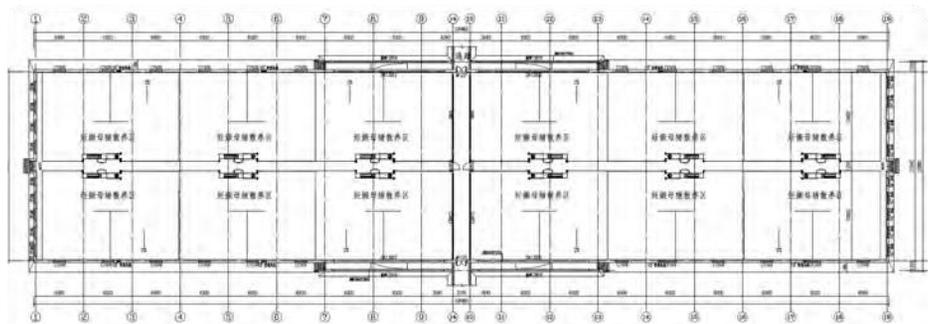
MEP design affects the daily operation of the pig farm. It includes calculation based on the scale and demand of the pig farm, and water and electricity resource conditions around the pig farm, in order to ensure adequate water resources, safe water quality, and to satisfy the demand from human and the pigs, production and living water requirement. The electricity supply level of a pig farm should meet the Level II requirement. When the provision level is Level III or below, a generator should be standby to ensure stable power supply. Overall planning also includes the water pipes and electrical network design, heating and environmental control systems.

◆ Construction Drawings of Pig Farms

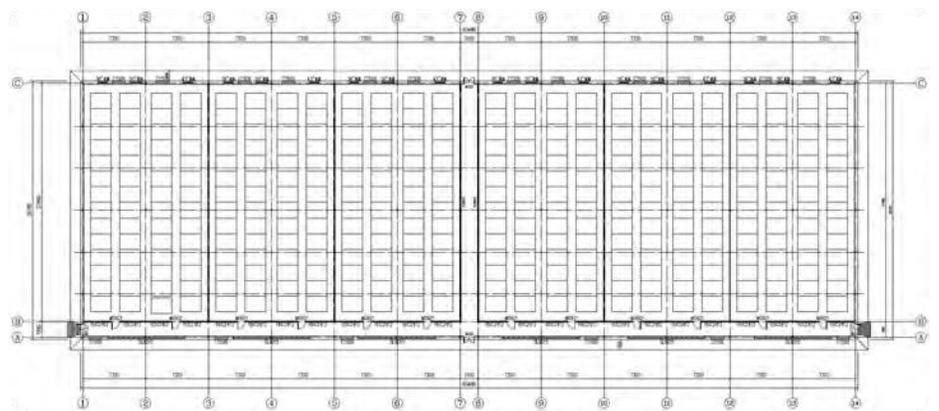
The drawings below are from a 1200 sow pig farm project in Beijing, including the site plan, nursery unit sections and fattening unit sections. Information provided includes the overall planning and layout, structures, materials, roof design, steel structure, wall structure, foundation structure, MEP design and etc.



Mating unit

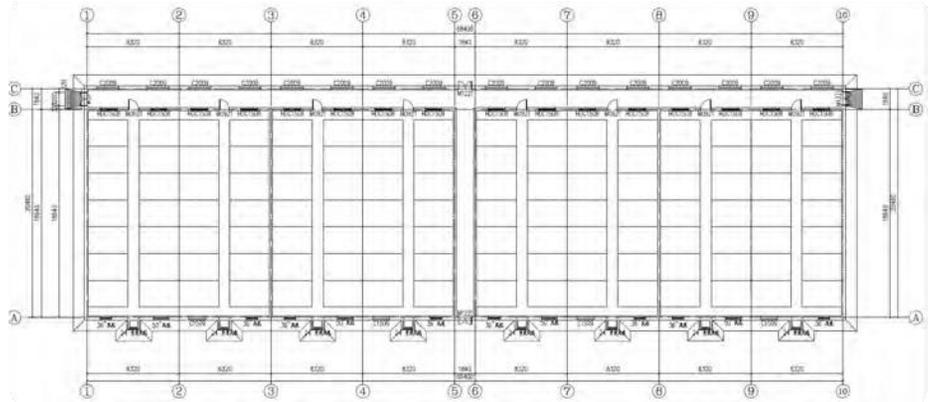


Gestation unit

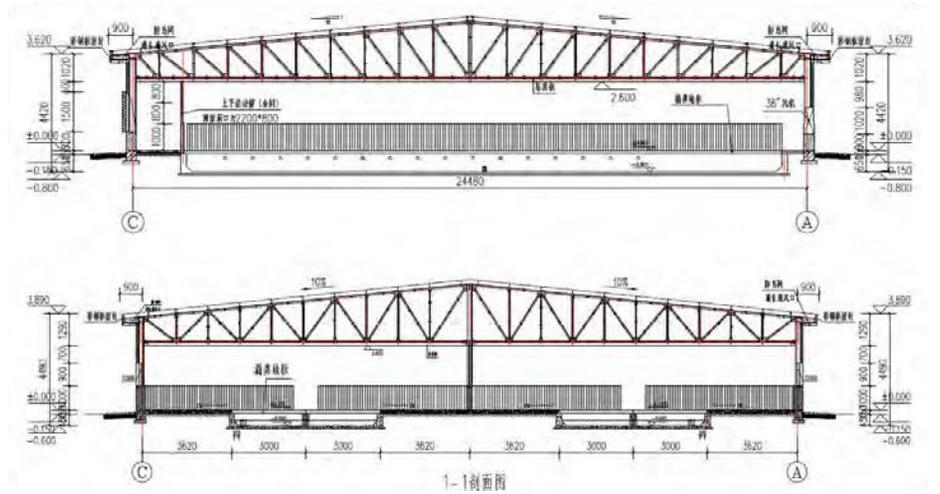


Farrowing unit

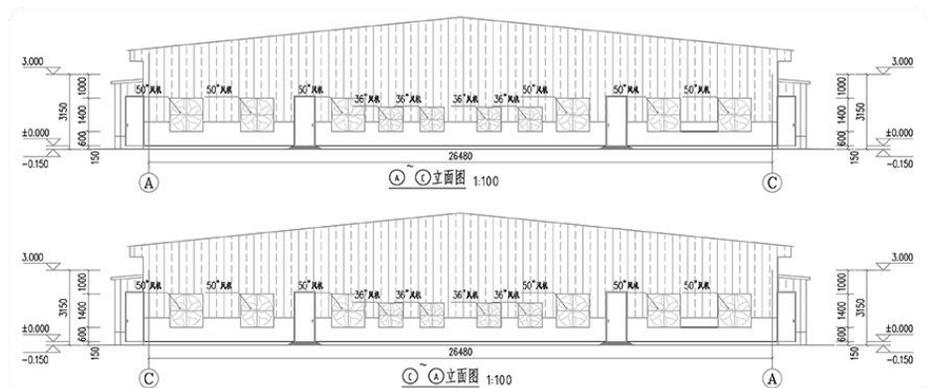
Nursery unit >>



Cross-section of the pigsty >>



Elevation of fattening unit >>



Pig Farm Construction

The construction of pig farm include: civil engineering construction, steel structure construction, MEP construction, facility installation, facility commissioning and etc. We has specialized management team for the “turn-key project” modern farm construction on site. Crossed construction can be carried out according to the construction plan, so that the construction time can be shortened. During the facilities installation process, technical staff training regarding the operation and maintenance of the facilities can also be carried out for a faster start.

Civil Engineering Construction

The construction of pig farms is the realization of the architectural and structural design. The civil construction is closely associated with facility installation. Integrated construction can prevent rework

and repair issues caused by different construction teams, and to guarantee construction progress.



Steel Structure Construction



Water, Electricity and Heating Design of Pig Farms

It mainly refers to the pre-installation of plumbing and electricity ducts, installation of water, electricity and heating equipment, in

order to meet the production and living needs at various pig farm sites.



Facility Installation and Commissioning

Our company has our own independent research team, and multiple manufacture factories. We have built long-term relationship with 22 international companies in regard to technical, product, and project cooperation. The products we provide including stalls, slotted floors, automatic dry feeding system, liquid feeding system,

environment control, and manure treatment facilities are leading in the industry. Meanwhile, we have a professional team experienced in technical and project installation, serving as the personnel guarantee of our EPC projects .



Environmental Control System

Comprehensive Solutions for Environmental Control System

Environment control of pig farms is based on the need of pigs, to provide them with comfortable temperature and ventilation, at the same time exhausting the waste air, humid air and dust from the pigsty. By ensuring the thermal and ventilation uniformity, the cold or hot stress caused by temperature change or ventilation irregularity is effectively reduced. Pig herd welfare and health level is enhanced, ensuring maximum feed conversion rate and utilization ratio, improving pig herd's growing speed and increasing productivity.

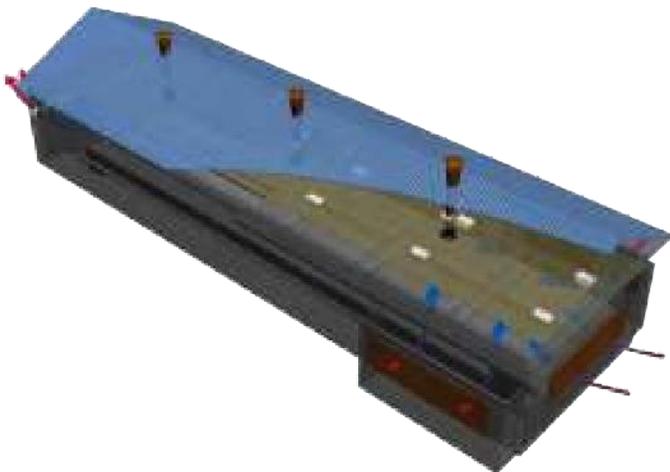
We provides the client with independent control using a micro computer control system, according to in and outside temperature caused pressure difference of different pigsty. The facilities include the automatic control fan, variable speed fan, cooling pad, roller curtain, ventilation inlets, up-and-down operable windows, heating facility, to manage the best living environment for the pigs.

Core of Environment Control -Ventilation Mode

Environment control is mainly realized via ventilation system, the design of ventilation system can be divided into the following methods. Our comprehensive solutions take into account the

climate condition of the region and the specific circumstance of the pigsties.

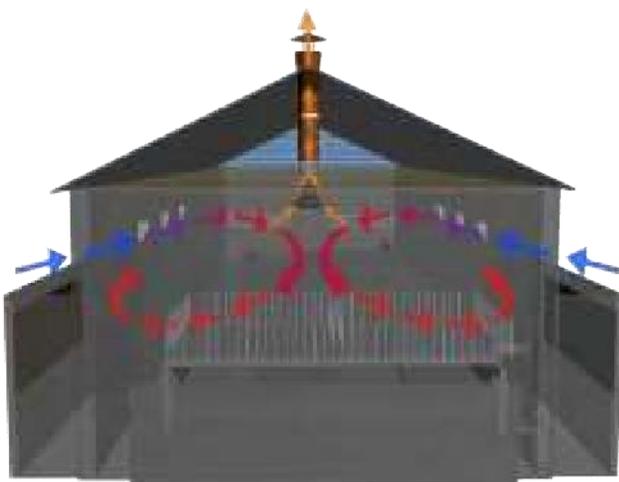
◆ Tunnel Ventilation (Longitudinal ventilation)



◆ Transversal Ventilation



◆ Vertical Ventilation



◆ Transition Ventilation

Mainly used in spring and autumn, in order to improve the pig's breathing environment. When the temperature gets higher, the system will cool it down. Through the combination of transverse ventilation and tunnel ventilation, to achieve comprehensive adjustment of the pigsty.

◆ Unit Ventilation

—Winter ventilation

The main concern of pigsty in winter is the elimination of humid air, while additional ventilation is for reducing the inside odor. The ventilation system in manure storage tank is most advantaged in winter, because it helps to evenly distribute fresh air in the pigsty achieved by low speed fresh air flow, ensuring the productivity of the pigs are not negatively affected by high level of odor.

—Summer ventilation

Based on the local climate condition in summer, calculate ventilation volume, number of fans, layout of fans, and decide the number and layout of supporting environment control facilities.

Environment Control Facilities

◆ Control System and Alarm Device

The central control is the core of the environment control system. It can sense the interior and exterior air temperature or pressure, and control the operation of fans, air inlets, rolling curtain, cooling pad, lighting, and heating device, to achieve automatic control in different seasonal ventilation modes, provide suitable living condition for pig herds. We can provide different types of controller/control unit, integral control cabinet, alarm device and related devices.



◆ Fans

Our company provides our clients with different combination of fans according to pigsty type and ventilation modes. Our fans are energy saving, low in noise, efficient and economical, with various types available.

Variable-speed Fan 18\24\36

Features:

Direct drive fan, rather than belt transmission. Adjustable speed, single phase, galvanized steel shell, cast aluminum blades.



| Contents | 18Variable speed fan | 24Variable speed fan | 36Variable speed fan |
|---|-----------------------|------------------------|------------------------|
| Rated voltage | 1-230V±10% 50HZ | 1-230V±10% 50HZ | 1-230V±10% 50HZ |
| Rated power | 0.38KW | 0.6KW | 0.96kW |
| Rated speed | 1365RPM | 890RPM | 830 RPM |
| The maximum permissible ambient temperature | 70°C | 70°C | 60°C |
| OPA maximum ventilation | 6350m ³ /h | 12000m ³ /h | 23000m ³ /h |
| Diameter | 520mm | 710mm | 1000mm |
| Maximum pressure | 112Pa | 90Pa | 96Pa |
| Noise | 78dB(A) | 80dB(A) | 57dB(A) |
| Protection class | IP54 | IP54 | IP54 |

Galvanized panel fan 36\50

Features:

1. Low noise, low energy consumption, high airflow;
2. Multiple types: 3-blade, 5-blade and cone-shaped fans. The 5-blade 130 fan is suitable for pigs farms with high altitude (60-100pa);
3. Special 3D blade design, max wind force, reduce air circulation lost; blind fan available, further improve air flow effect;
4. Durable, excellent material, can resist severe weather;
5. Easy to clean;
6. Safety protection: CE certification.

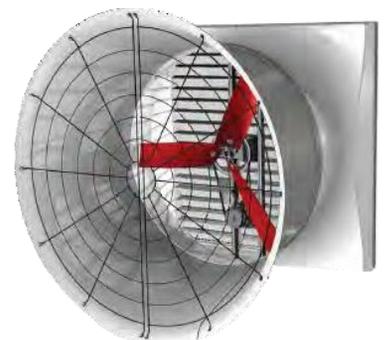


| Fan typ | Power (W) | Noise | Power consumption (W/1000m ³ /h) | Maximum ventilation(M ³ /h) | | | | | | |
|---------------------------------|-----------|-------|---|--|-------|-------|-------|-------|-------|-------|
| | | | | 0PA | 20pA | 40PA | 60PA | 80pA | 90PA | 100PA |
| 3 blades 130 fans | 1650 | 65 | 36.9 | 45600 | 41370 | 37030 | 30940 | - | - | - |
| 3 blades 130 fans | 1650 | 64 | 38.6 | 39270 | 36360 | 33410 | 29300 | 26010 | 23790 | 21600 |
| 3-blade and cone-shaped130 fans | 1650 | 64 | 31.8 | 47470 | 43930 | 39590 | - | - | - | - |
| 5-blade and cone-shaped130 fans | 1650 | 65 | 34.1 | 42570 | 39580 | 36450 | 33290 | 28450 | 25410 | - |
| 92 Fans | 680 | 67 | 38.9 | 17500 | 16200 | 14300 | 12000 | 9500 | - | - |

Fiber glass reinforced plastic fan 36\50\54

Features:

Glass fiber reinforced blade airfoil impeller, all internal hardware are made of stainless steel and aluminum, can stand up to 104 °F ambient temperature, and is resistant to bad weather. With belt drive motor, a single person can adjust or move it. Rotational large diameter tapered hood, stackable, easy for transportation. RTM fiberglass shell, and durable. All the materials have smooth surfaces, with UV coating protection, and are corrosion resistant, easy to maintain and install. Excellent air flow effects, high in efficiency, low in noise, and easy to clean.



| Blade diameter (φ mm) | Motor speed (RPM) | Motor speed | PowerP _{in} (W) | Power consumption (W/1000m ³ /h) | I1MAX | I2MAX | Maximum ventilation (M ³ /h) | | | | Maximum negative |
|-----------------------|-------------------|-------------|--------------------------|---|-------|-------|---|-------|-------|-------|------------------|
| | | | | | | | 0PA | 10pA | 25PA | 50PA | |
| 920 | 895 | 3 | 740 | 33.8 | 3 | 1.8 | 21800 | 21000 | 19650 | 16900 | 70 |
| 1300 | 580 | 3 | 1350 | 27.8 | 5 | 2.9 | 48800 | 47000 | 43950 | 38000 | 60 |
| 1400 | 530 | 3 | 1200 | 22.5 | 4.8 | 2.8 | 53400 | 51300 | 47700 | 38600 | 60 |
| 1400 | 535 | 5 | 1100 | 24.7 | 4.9 | 2.8 | 45200 | 43500 | 40800 | 35600 | 70 |

Eclube fan

Our company Husbandry provides the latest European standards of energy-saving fan --Eclube fan.

Features:

1. The energy consumption of every 1000m³ / h ventilation volume is lower;
2. Noise is 15% lower than AC fan;
3. Power consumption is 20% lower than AC fan;
4. Built-in controller can be connected directly to the sensor, speed changes automatically according to the actual situation



Roof Intake Air Distributor >> ①

Air inlet is designed to be gentle and to avoid air swirl, which makes the efficiency of the ventilation system increase by 5% to 10%.

Roof Exhaust Chimney >> ②

It is used to exhaust the polluted air and moisture from the pig house to prevent heat accumulation in summer and condensation in winter. Via the ATM control system, the airflow in each unit is accurately controlled. The system is significantly energy effective.



Ventilation Inlet

The ventilation inlet makes sure that certain amount and direction of fresh air is provided, to avoid condensation in winter. Installation position, either on a wall or ceiling, depends on the different ventilation modes.



◆ Ceiling inlet >>

◆ Wall inlet

The inlet size is adjustable, also is the air direction and airflow rate into the interior. The middle part is air-insulated, and curved design can ensure that air enter the pigsty smoothly.



Automatic Roller Shutte

The bottom end is fixed, and the shutter opens from top to bottom.



Cooling Pad

The cooling system includes cooling pad, water-spray and etc. The cooling pad is made of corrugated fiber paper, with well-distributed water flow, low wind resistance, can sustain relatively high wind speed, anti-corrosive, unlikely to develop moss, long service life, can achieve optimal cooling effect in combination with fans.



Heating System

The ventilation systems and heating systems are closely linked, they can't be designed separately. Heating systems typically use

wings pipe, finned tubes and floor heating, etc., to ensure evenly heating.

◆ Finned tubes heating system



◆ Floor heating system



Slurry Heat System

◆ Heat pump

Energy flow in modern pigsty is huge. The energy lost is significant if the slurry is not utilized. Heat pump is an optimal choice for the recycling of heat energy. Heat recycling system is installed in the slurry storage tank below the pigsty. As slurry is generated, the heat pump cools the slurry, and transfer the energy into the buffer

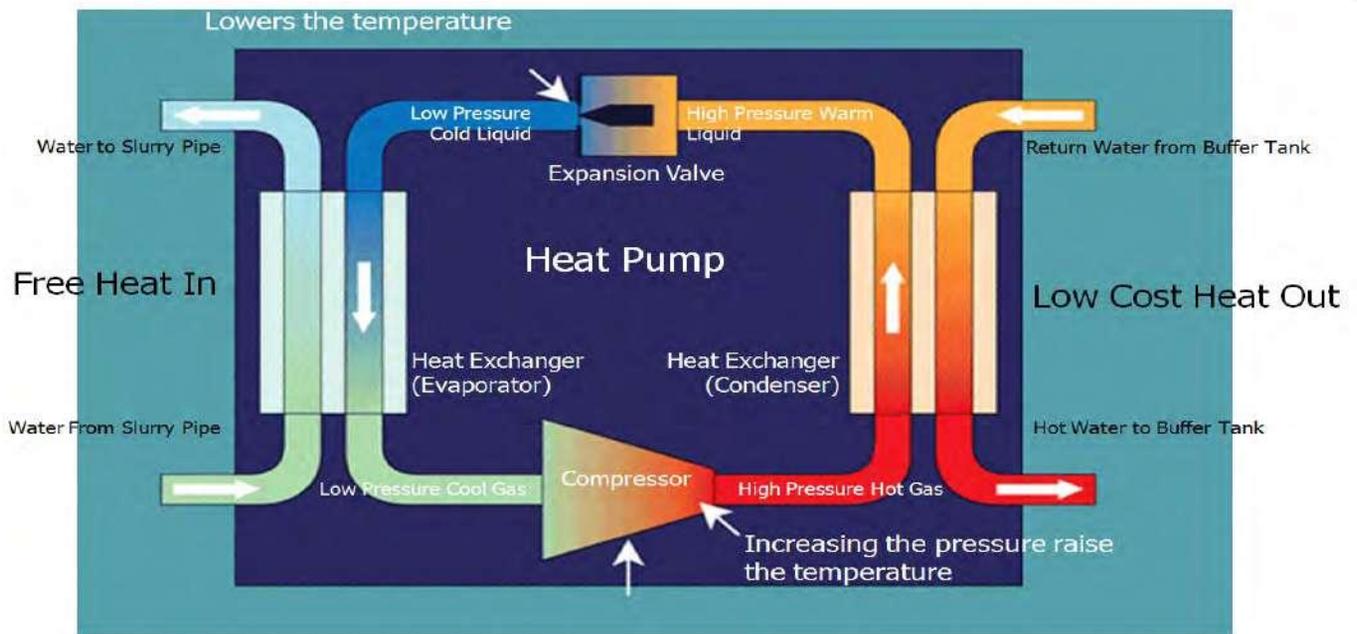
tank. The hot water in the buffer tank conducts the energy to the radiator and floor heating in the pigsty. Via such process of cooling and heating, the heat pump can bring out the energy stored in the pig manure and gives it back to the pig farm, improving the economic efficiency of the pig farm.



◆ Slurry heat system introduction

1. Heating system components: heat recycle system, heating system, conveying system, cooling system and control system;
2. Heat recycle system: utilizing the residual heat of pig slurry, with plastic tubes (PVC or PE tube) laid on the bottom of slurry channels, and recycles the slurry heat via water circulation, the water temperature reaches 20-25°C after heat recycling;
3. Heating system: Heat the 20-25°C water to 55°C via compressor working method (refrigeration and heat emission);
4. Conveying system: Send the compressor heated 55°C water to pigsties via circulating pump and conveying ducts;
5. Cooling system: Send the heated water via the cooling system (floor heating, finned tubes, fan coil, and etc.) evenly into the pigsty, providing heating;
6. Control system: Control the heat release in the pigsty, to reach the temperature requirement of the pigsty.

◆ Principle



Air Conditioning System

Hot water as the medium, heat is evenly distributed in the pigsty via fan coil as heat gas. The installation number and location of the heat and ventilation AIO machine are based on heat supply condition.



Air Filtering System

Comprehensive air filtering and epidemic-control measures can reduce the transmission of blue ear disease. Research found that the pathogen of many viruses needs to be attached to particles. Therefore, we have designed different air filtering solutions based on the various sizes of the particles, effectively reducing the risks of epidemic infection in the pig farm.





Daily feeding is the most basic, yet time and labor costing work. Especially in large scale pig farms, if to use manual feeding, the labor cost is significant and feed loss, quality issue and feed transportation safety are the latent problems that affects the pigs' nutrition and health. With the increase of labor cost and expansion of scale breeding, automatic dry feed system has already been applied in many pig farms. We designed different feed delivery systems according to different feed resources and conditions to meet the individual need of each client, and to build efficient, safe and energy-saving dietary for pigs.

Modes of Dry Feeding System

We can provide our customers two types of dry feeding:

- Type 1:** Centralized Feed Supply on Site
- Type 2:** Feed Supply from Outside

Automatic Dry Feed System Components and Features

Silo: Two types are available, i.e. the hot-dip galvanized silo and the fiber-glass silo

◆ Hot-dip Galvanized Model

The hot-dip galvanized silo is one-time molded in Z275 hot-dip galvanized panel. The panel thickness is 1.2mm. There are

different size models. Surface is coated with thermal paint and properly sealed.

Hot-dip Galvanized Model Types

| Model | Diameter (mm) | Thickness (mm) | Material | Height (mm) | Corrugated Panel Layer |
|-------|---------------|----------------|--------------------------|-------------|------------------------|
| 1.7T | 1530 | 1.2 | hot-dip galvanized panel | 3410 | 1 |
| 2.75T | 1530 | 1.2 | hot-dip galvanized panel | 4230 | 2 |
| 3.6T | 2140 | 1.2 | hot-dip galvanized panel | 4300 | 1 |
| 5.4T | 2140 | 1.2 | hot-dip galvanized panel | 5140 | 2 |
| 7.3T | 2140 | 1.2 | hot-dip galvanized panel | 5950 | 3 |
| 10.5T | 2750 | 1.2 | hot-dip galvanized panel | 5820 | 2 |
| 13.8T | 2750 | 1.2 | hot-dip galvanized panel | 6630 | 3 |
| 17.1T | 2750 | 1.2 | hot-dip galvanized panel | 7450 | 4 |



◆ Fiber-glass Model

Fiber-glass silo is light in material, high in strength and anti-corrosive. It can effectively avoid rust and rainwater caused pollution and deterioration of feed. The conductivity coefficient of fiber-glass is only 1/250 of steel, the thermal performance is stable,

and can avoid interior wall condensation caused by big temperature difference. This type of feed tower is most suitable for southern regions with high temperature and high humidity.

Fiber-glass Model Types

| Model | Volume (m ³) | Diameter (mm) | Height (m) |
|-------|--------------------------|---------------|------------|
| 1T | 1.9 | 1400 | 3.2 |
| 2T | 3.7 | 1630 | 3.85 |
| 4T | 7.3 | 2080 | 4.85 |
| 6T | 11 | 2300 | 5.6 |
| 8T | 14.6 | 2300 | 6.5 |
| 10T | 18.2 | 2630 | 6.5 |



◆ Main Engine Drive System

The main driven unit is installed with double protective device, can effectively protect the whole facility in case of operation difficulty or accidental power cut. The main engine drive system is

usually installed inside the pigsty; it can return feed, and is easy to maintain and service.

Technical Parameters

| Type | Feed pipe diameter (mm) | Max. length (m) | | Motor power (HP) | Transportation capacity (L/h) |
|-------|-------------------------|-----------------|--------|------------------|-------------------------------|
| | | Grain | Powder | | |
| JPN60 | φ 60 | 300 | 400 | 1-2 | 3000 |



◆ Silo weighing system

The system is stable, and is free of environmental and other influences; Sensitive signal transmission and accurate weighing, the error is within $\pm 500g$.



◆ Corner

Nylon shell with o-ring, good sealing performance and waterproof, cast-iron wheel increase the internal feed cleaning

Material: nylon shell, cast iron pulley
dimensions: 360*360*60mm

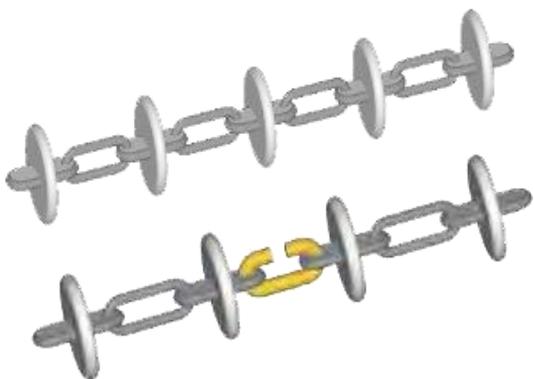
function, with no feed residue, to prevent mildew in the wheel, secure feed safety and increase service life.



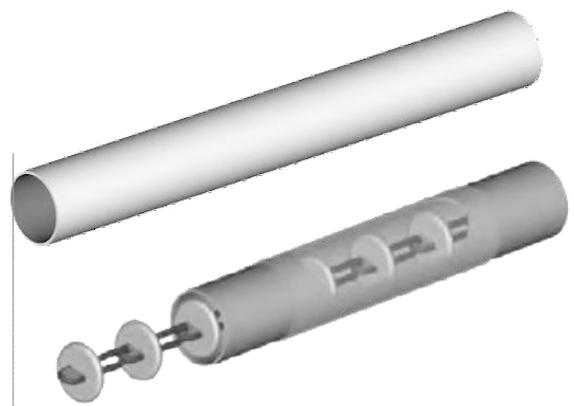
◆ Deliver Chain and Delivery Pipe

The deliver chain is made with special treated high-strength rebar and high-strength nylon. The joints are fully cast to reduce friction, to avoid displacement and deformation of the chain and

chips, and increase service life. The nylon chip is food grade safety material, secure and reliable, of low-friction, and long service life.



chain conveyors



control segment

◆ **Dispenser**

The deliver chain is made with special treated high-strength rebar and high-strength nylon. The joints are fully cast to reduce friction, to avoid displacement and deformation of the chain and chips, and increase service life. The nylon chip is food grade safety material, secure and reliable, of low-friction, and long service life.



◆ **Adjustable hopper**

It is installed under and used together with the hopper. The height can be adjusted. It helps get out humid air, and effectively avoid feed from moisture and mildew.



◆ **Portioner**

According to different feed supply solutions, different types are available for choice, including single, double and multiple

direction Portioner, made with coated carbon steel plate or 304 stainless steel.

one-way Portioner

- 1.coated carbon steel plate
- 2.510*350*353

Two-way Portioner

- 1.coated carbon steel plate
- 2.460*350*353



◆ **Drop switches**

Mainly used in the in free feeding system in nursery pig and fatten pigs, there are different open styles based on different pigs.



rope style drop switch



pull-up style drop switch



◆ Grain sensor switches

The grain sensor is capacitive, of IP67 protection grade, the maximum load current is 600mA. It is specially designed for husbandry breeding environment, and is installed at the end of the feed system, and automatically controls the start and stop of the whole feed supply system. Two-wire and five-wire sensory system

are available for choice. The five-wire system has time-delay and timing functions, with built-in relay, effectively increase signal transmission distance. high-strength plastic shell, alternating current capacitor, diameter 30mm



Two-line sensor



Five-line sensor

◆ Control Cabinet

According to the set number of feed supply system, choose from 1p, 2p, 3p,...np control unit, manual and automatic control are both applicable. Time and section separate feeding can reduce workload and labor cost, and increase work efficiency.



◆ Spiral Feed Supply system components

Our company provides a series of spiral feed lines, e.g. MR63, MR75, supply capacity ranges from 300 to 3500kg/h. MR90, MR125, MP63, MP75, MP90, MP125 and etc. The feed



Feed supply drive



Spiral feeding supplier



30°double hopper



30°single hopper

Application





Liquid feeding was, in fact, the most traditional way of pig feeding adopted from their natural habit. However, the technical standard for liquid feeding was behind the steps of modernized pig breeding, and thus many modern large scale pig farms chose to use the dry feed system. With the development and application of intelligent management and automatic liquid feeding technologies, liquid feeding system is becoming the new fashion.

Technical Principles

The total feed volume for one time is calculated using program. Based on the feed formula set by the system, the raw materials are rationed and sent to the mixer via automatic control conveyor. Meanwhile water is also sent via the water tank in the mixer proportionally. After well mixed in the mixer, the liquid feed is

sent into individual troughs of each unit through pump, valves and pipelines. After finishing feed delivery, the mixer is cleaned in acid fog and ozone thunderstorm. Thus one cycle is complete and ready for the next one.

Advantages

◆ **Lower Cost, Accurate Feeding**

1. High intake and high feed conversion ratio

The pH value can be detected by the system sensor. The palatability is good after mixing and the feed is easy for digestion. Compared with dry feed the consumption conversion rate can

increase by 10%, saving feed 11%-13%. Liquid feed can increase the pigs' appetite in hot weather, and the water contained in the feed can help accelerate excrement and lower the risks of hot stress.

2. Multiphase accurate feeding

The requirement for protein and calorie is different during the pig's growing stage. Intelligent and automatic liquid feeding system can adjust the formula in time, achieve multiphase accurate feeding,

and satisfy the pig group's nutrition need. The annual feed error is less than 1/100000. The feed waste can be avoided and the group can take feed at the same time orderly and well-distributed.

3. Lower Cost, Accurate Feeding

Liquid feed is good for raw material selection, transportation and storage. Client can control the cost of feed easily, saving production cost and increase profit. Compared with dry feed, liquid feed formula is more flexible, it can

be made by compound feed mixed with water, or by component materials processed in the central kitchen. The flexibility is most obvious when one of the component materials is expensive at the time, then it can be replaced by a cheaper one.



◆ Efficient Use, Water-Saving

Liquid feeding can provide 70% of daily required water intake for the pigs. This can relatively reduce the drinking times of the pigs, saving water resource and reducing the risks of urinary diseases.

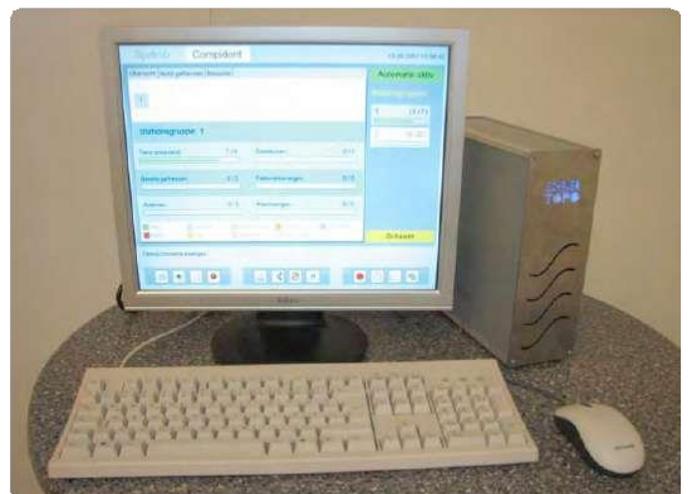
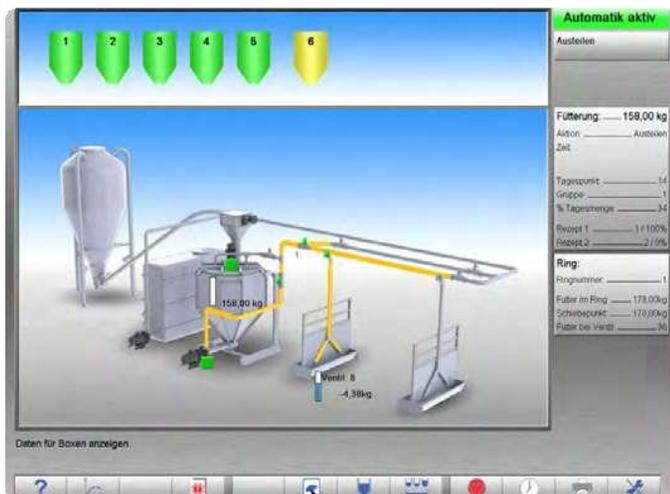
◆ Reduce the discharge of hazardous gas, improve pigsty environment, and improve pig group health

1. Liquid feed is good for fermentation and digestion, can reduce nitrogen discharge from the pigs, improving pigsty environment, and relieve the pressure of the environment control system.
2. Liquid feed can reduce the transmission of dust and virus, reducing the respiratory diseases of pigs, no feed residue, avoid rat hazard and reduce risks of infectious diseases, improving pig group health level and improve pig farm working environment.



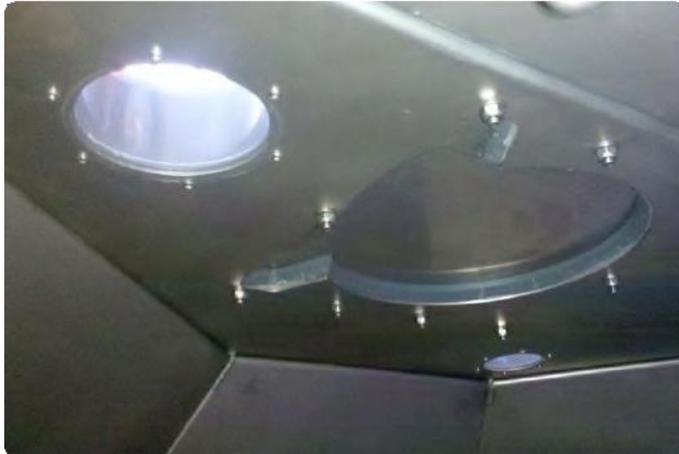
◆ Highly intelligent and labor saving

The automatic system can operate 24 hours, reducing the time and labor for feed transportation, formulating, mixing and feeding. The system can be managed in farrowing and fattening units, for estrus observation, mating and medical treatment procedures. Also it can increase the unit feeding number per worker, lowering labor cost and increase labor utilization ratio.



◆ **Eight-stage cleaning and disinfection**

1. Interior and exterior design to prevent potential hygiene problems.



2. Fresh water/ hot water sprayer tank cleaning via paddle mixer.



3. Optional acid fogger for fat removal and antibacterial vat cleaning.

4. Ozone “Cleaning thunderstorm” ozone generator for sterilisation and prevention of biogenous coatings in liquid feeding tank.

5. Optional fresh water cleaning for emptying and cleaning of the feedline.

6. Optional Turboclean air fogger cleaning system to blow out and thoroughly clean the connections and feed valve discharges after each feed distribution.

7. Optional Acid/ Base cleaning system for general cleaning at the end of the fattening period.

8. Chlorodioxin daily general cleaning and disinfection of entire liquid feeding system.

Main System Components

◆ **Stainless steel tanks**

| Type | Height | Width | Paddle |
|---------|--------|-------|---------------------|
| 1300 lt | 2215 | 1377 | 1.5 kW, slow motion |
| 1750 lt | 2515 | 1377 | 1.5 kW, slow motion |
| 2150 lt | 2153 | 1827 | 1.5 kW, slow motion |
| 2950 lt | 2453 | 1827 | 1.5 kW, slow motion |
| 3750 lt | 2753 | 1827 | 1.5 kW, slow motion |
| 4550 lt | 3062 | 1827 | 1.5 kW, slow motion |
| 5350 lt | 3362 | 1827 | 4 kW, slow motion |



◆ **Pumps**

•AL - III

| Performance | Rotor ø | Flow rate |
|-------------|---------|-----------|
| 4 kW | 175 mm | 90l/h |
| 5.5 kW | 175 mm | 90 l/h |
| 7.5 kW | 195 mm | 100 l/h |



•Spiral pump

•AD



•Turbo Clean



•Water ring pump



Application





Electronic Sow Feeding Station (ESF)

The Electronic Sow Feeding system (ESF) utilizes electronic devices for group feeding and management of pregnant sows. The sows can move more freely and therefore are healthier. Customized accurate feeding makes sure that the group sows' physical condition is more uniform. The number of piglets weaned increases from 20 to 30 per litter is now possible. The productivity of sows is greatly enhanced.

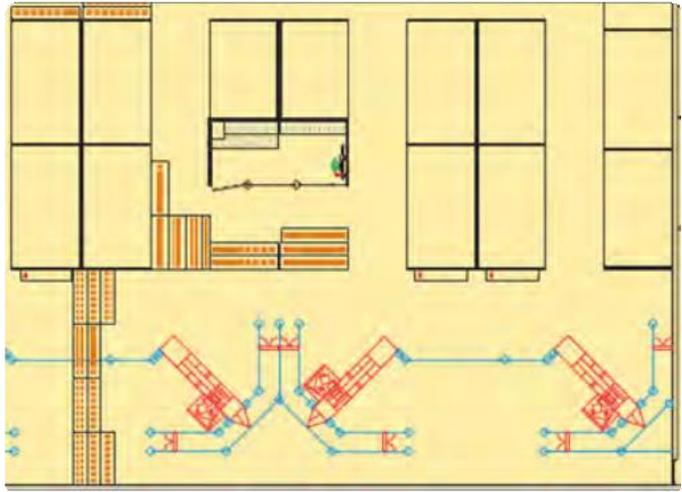
Our company can provide our clients with dynamic and static feeding system solutions, together with corresponding feeding stations, i.e. the Compident VII and Compident Smart ESF stations. Compident VII system works for both dynamic and static feeding; Compident Smart is for static feeding. Compident VII is the more advanced model compared to Compident Smart.

Dynamic Feeding Mode

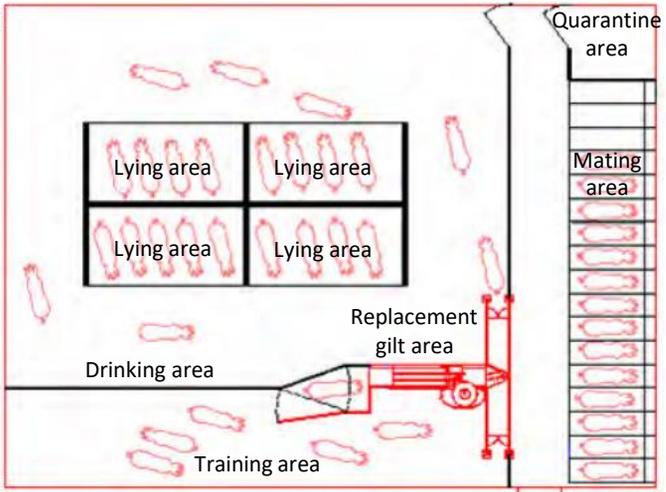
The dynamic feeding mode works for small scale (200-800 sows) pig farms with relatively high management standard. It refers to mix sows during different gestation stage in one pen. Usually multiple

feeding stations are installed in one pen. The feeding stations are used in association with the selection unit. We recommend Compident VII station for dynamic feeding.

◆ **ESF station layout plan for 500 sows**



CompidentVII electronic sow feeding station



The layout of CompidentVII electronic sow feeding station

◆ Advantages of Dynamic Feeding Mode

1. This mode works for small scale farms. In the case of farm expansion, as long as the pigsty is of enough space, it is only needed to increase the number of feeding stations;
2. Dynamic feeding needs self selection unit and heat detector in supporting the management of different kinds of sows, e.g. estrus

- returning sows, farrowing sows and etc., making management more convenient and effective;
3. The sow can move freely during pregnancy, which benefits the sow's health. Also less group transfer means less stress to the sows.

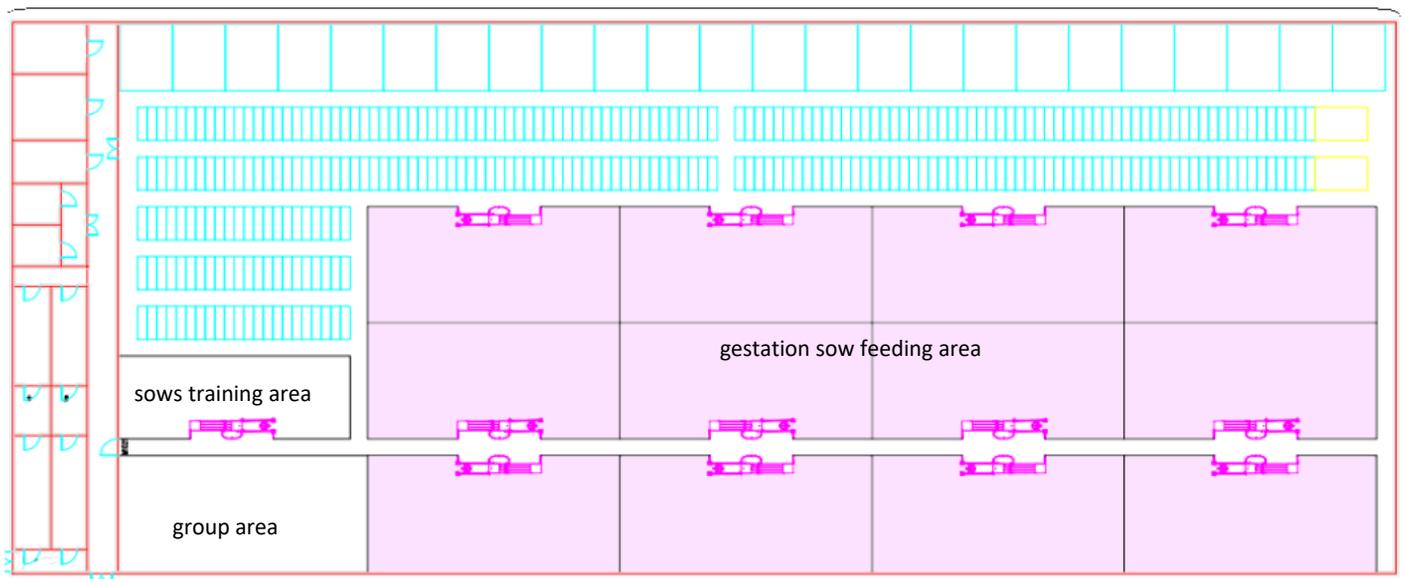
◆ Examples of Dynamic Feeding



Static Feeding Mode

The static feeding mode applies to relatively large pig farms (above 800 sows). It refers to the system in which the sows are transferred into the ESF station 28 days after estrus and insemination. The sows transferred into the station must be verified pregnant sows. Mated sows on weekly base are categorized into one insemination group and managed using one feeding station, so that

the group is kept stable within one production cycle. Such method can avoid the spread of diseases during group mixing. It is convenient for management, and helps to achieve all-in-all-out of the group. Two models Compident VII and Compident Smart are available for static feeding mode.



The layout of Compident Smart feeding station in 1200 sows gestation house

◆ **Advantages of static feeding mode**

1. Sows after insemination are feed in the limited stalls for approximately 1 month, for the convenience of estrus returning observation and pregnancy test. Also making sure all sows transferred into the ESF station are pregnant can avoid fighting and miscarriage;
2. Pregnant sows can move freely for 75% of the time during pregnancy, good for their health;
3. Pregnant sows are feed in independent ESF stations. Each group contains 50-70 sows. It's convenient for observation and problem solving;
4. Each station can manage the sows efficiently, by clear information on the sows' pregnancy stages, without the need of over-marking or selection.

◆ **Production Example of the Static Feeding**



Products Components of ESF

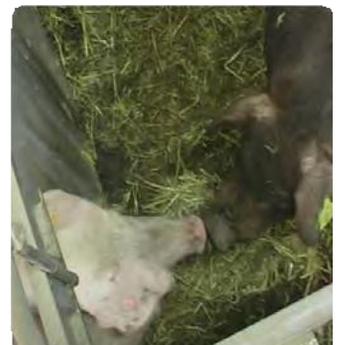
◆ **Topo computerized feeding system**

Operation system stable, software localization, easy to learn and use. Sow with mobility management system, managers can always check phone for sow production data, updated to keep pace with the feeding system.



◆ **Estrus returning testing station**

Estrus returning testing station is the support product of electronic sow feeding system (ESF), with it, we can efficiently and timely look estrus returning sows, improve breeding rate.



◆ **The Station displayer**

Multiple base stations can share a monitor, plug and play, easy operation. The base station monitor can display ear grades, field number, grouping number, uneaten feed quotas using status information, but also can realize switching and vote feeder calibration mode between each base station and other functions. The base station and remote remote control monitor should be used in conjunction with each other, it can be manually operated by the remote station.



The Station displayer



Unified Remote

◆ Feed portioners

Each base station is equipped with two portioners, the main and accessory portioner. The specifications are: 140L main storage tank with cellwheel accurate portioner; 20L or 70L accessory storage tank with auger accurate portioner (optional); 6L accessory storage tank with small volume or medicine portioner (optional).



◆ Water portioner

Each time the portioner allocates feed mixture that is mixed by rationed water and feed, so that the pigs get to eat wet mixed feed, increasing the feed conversion ratio.



◆ Automatic Color Spray Coding(Optional)

Three colors are available for the automatic color spray, easy distinction for the pig group management.



◆ Unique swivel through with feed bowl

This device is of broken arch structure, ensuring unobstructed feed allocation. It is made by German 304 stainless steel, sturdy and durable.



◆ Group Selection (Optional)

The purpose of the group selection institution is to realize automatic grouping, isolation and other management goals, with the following functions:

1. Group selection or individual pig selection;
2. Group selection according to difference in pregnancy date, pre-farrowing and other factors;
3. Control over entry gate to guarantee reliability and maximizing feeding capacity;
4. Report on group selection is available before or afterwards;
5. Each station is equipped with individual selector for the purpose of selection.



Pig Performance Testing System (MLP)

Our company provides Compident pig performance testing stations (MLP) for pig farms. Each station can manage 12-15 pigs. The station mainly detects the pig's growing information. It has two main functions:

1. When the pig enters the station to feed, it will automatically read the pig's ear tag via radio frequency, and calculate the pig's feed volume according to the time of its entry and exit and the weight of feeding trough.
2. The system is equipped with weight scale, which takes the pig's weight automatically during feeding process; data is recorded and analyzed via software, eventually detailed report is generated for the management staff's reference.

Three sets of data are most important for the MLP system, i.e. body weight at entry, liquid feed consumption (to calculate daily weight gain) and body weight at exit. So it is critical to have a good MLP system for the data's accuracy and precision.

◆ Variety of Choices

Two types of solutions are available in the weighing system depending on the client's requirement. One is assigning one weighing system to each facility; the other is having a shared weighing platform in the public area. Both methods can meet the requirement for breeding pig assessment and data accuracy.

◆ Weighing accuracy

The weighing system consists of 2 independent load cells and 8 weighing points. The purpose is to assure even weight distribution while scaling. Even when the pig wobbles, the accuracy of the final result would not be affected. The load cell is made up by the front and rear platform. If a second pig stands anywhere on the platform, the value would be considered invalid, which assures the accuracy of the collected data at entry/exit of the pig in maximum.

◆ Feeding precision

When the pig enters for feed, weight of the feeding trough is scaled for once, then the feeding trough is detached from the scale sensor and suspended, in which way the sensor is protected from interference. When the door of feeding trough opens, and closes after the pig finishes feeding, the feeding trough is weighted again, thus the difference obtained is equal to the feeding weight of the pig at a time. With data collected from numerous testing, the deviation is only 0.03%, and accumulative maximum deviation is only 3g.

Details and Performance Design of Compident MLP

- Flexible size design;
- Independent Weighing and Feeding;
- Friendly feeding environment;
- Protective sensor design;
- Welfare mechanical design;
- Steady load cell design;
- Electronic system control.



Stall System

The modern pig farms are generally consist of, in terms of functions, the pigsties for reservation, boar, breeding, gestation, farrowing, nursery and fattening. We have designed a series of different stalls for different pig herds.

- Reserve (Reserve sow big stalls)
- Boar (Boar stalls; Semen collection stalls)
- Breeding (Barren sow big stalls; Single stall)
- Gestation (Self-closing stalls; Single stall; ESF)
- Farrowing (Farrowing stalls)
- Nursery (Nursery stalls)
- Fattening (Fattening big stalls)

Individual Stalls



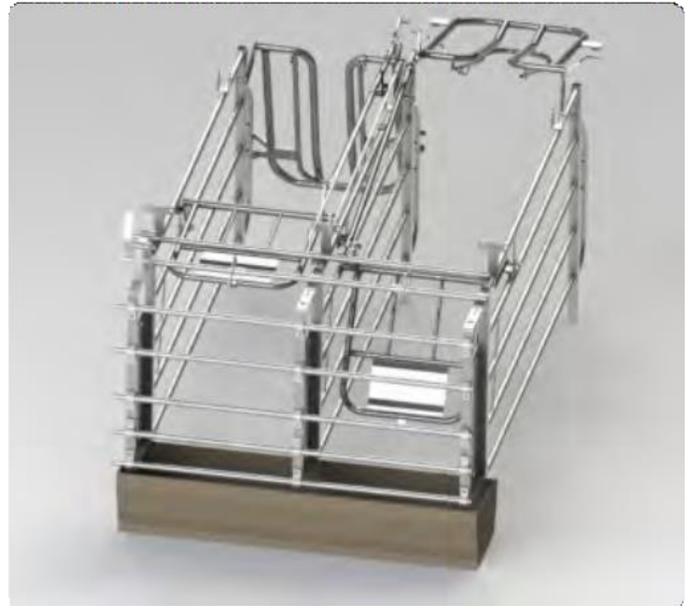
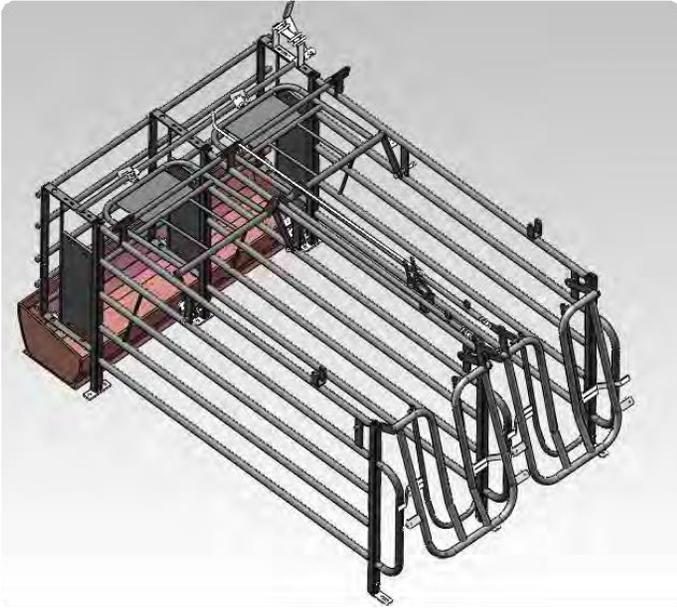
<< The application of Individual stall in Mating unit

Farrowing Stalls



<< The application of Farrowing Stalls in farrowing unit

Self-closing Stalls



Nursery Stalls



Stall accessory system—feeding trough

- ◆ stainless steel long trough
 - material—304 stainless steel
 - thickness—1.2mm
- ◆ dry-wet feeding trough



- ◆ Double sides, 6/8/10 holes, feeding trough



- ◆ piglet stainless steel feeding trough



Plastic Slotted Floors

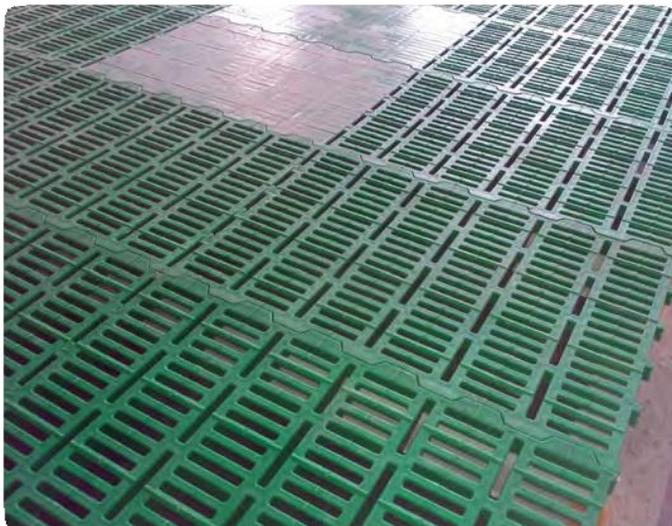
The plastic slotted floor is made of primitive particle materials, with high strength, resilience, anti-skid, easy to install, with double back rebar, mostly used in piglet pens, with variable sizes for

choice, can be incised according to need. One rebar weight capacity is 200kg.

◆ Sizes of Plastic Slotted Floors



| Pig group | Specification (mm) | Gap width (mm) | Rebar width (mm) | piece/m ² |
|-------------|--------------------|----------------|------------------|----------------------|
| Piglet | 400*600 | 10 | 10 | 4.166 |
| Piglet | 500*600 | 10 | 10 | 3.33 |
| Piglet | 545*460 | 10 | 10 | 3.058 |
| Piglet | 300*500 | 10 | 10 | 6.66 |
| Piglet | 300*700 | 10 | 10 | 4.76 |
| Piglet | 300*700 | Non-Slotted | 10 | 4.76 |
| Piglet | 400*600 | Non-Slotted | 10 | 4.166 |
| Piglet | 500*600 | Non-Slotted | 10 | 3.33 |
| Piglet | 545*460 | Non-Slotted | 10 | 3.058 |
| Nursery pig | 400*600 | 10 | 10 | 4.166 |
| Nursery pig | 500*600 | 10 | 10 | 3.33 |
| Nursery pig | 545*460 | 10 | 10 | 3.058 |
| Nursery pig | 300*700 | Non-Slotted | 10 | 4.76 |
| Nursery pig | 400*600 | Non-Slotted | 10 | 4.166 |
| Nursery pig | 500*600 | Non-Slotted | 10 | 3.33 |
| Nursery pig | 545*460 | Non-Slotted | 10 | 3.058 |
| Sow | 400*600 | 10 | 10 | 4.166 |
| Sow | 600*600 | 10 | 10 | 2.77 |



Cast Iron Slotted Floors

The Cast Iron Slotted Floor is made of spheroidal graphite cast iron, with smooth surface, durable and harmless to pig feet, mostly used in sow farrowing pigsty, variable sizes are available for choice.

◆ Sizes of Cast iron Slotted Floors

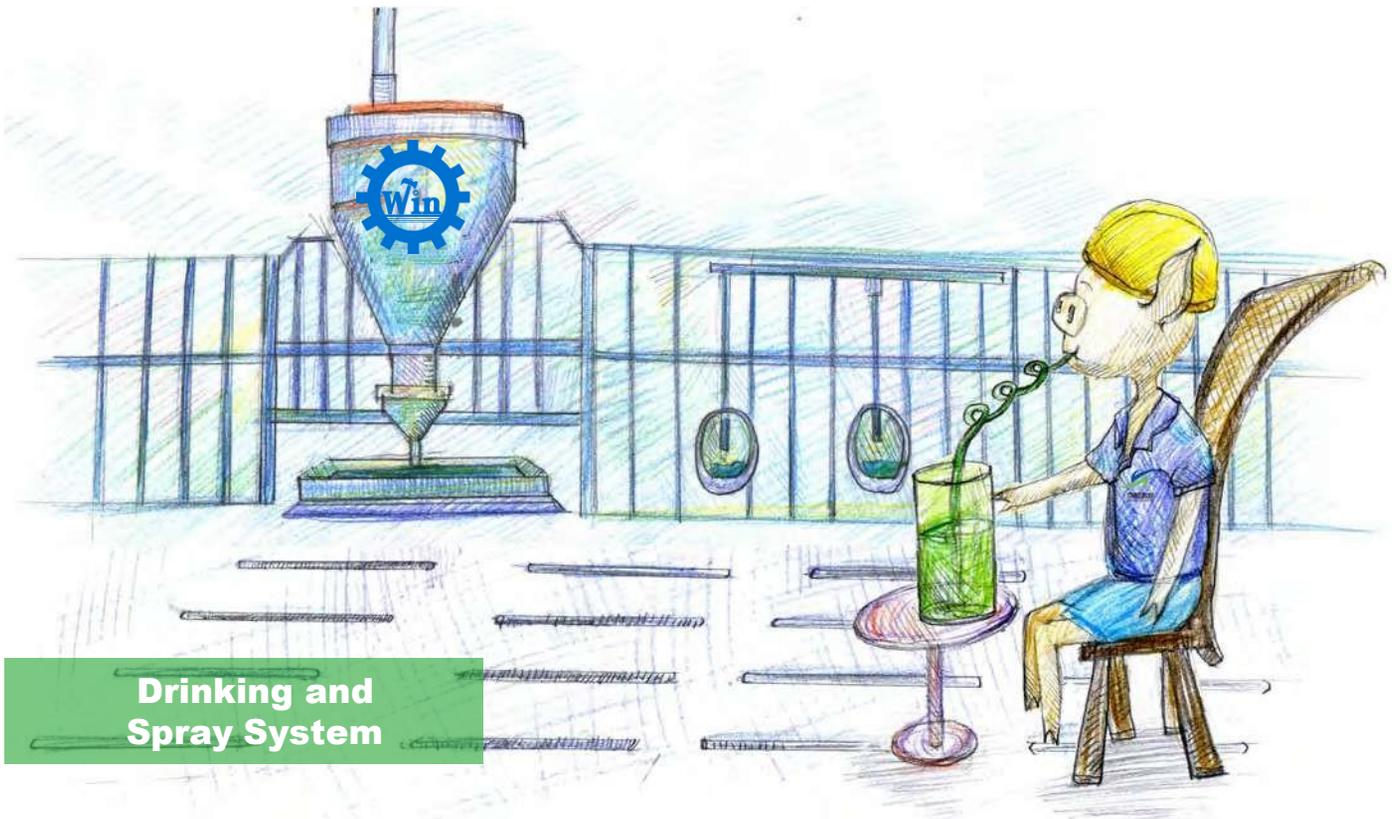
| Pig group | Specification (mm) | Gap width (mm) | Rebar width (mm) | piece/m ² |
|-----------|--------------------|----------------|------------------|----------------------|
| Sow | 300*609 | 10 | 10 | 5.473 |
| Sow | 400*609 | 10 | 10 | 4.105 |
| Sow | 400*1000 | 10 | 10 | 2.5 |
| Sow | 500*595 | 10 | 10 | 3.361 |
| Sow | 500*609 | 10 | 10 | 3.284 |
| Sow | 500*1200 | 10 | 10 | 1.66 |
| Sow | 600*595 | 10 | 10 | 2.801 |
| Sow | 600*600 | 10 | 10 | 2.77 |
| Sow | 600*700 | 10 | 10 | 2.38 |
| Sow | 600*1100 | 10 | 10 | 1.51 |
| Sow | 600*1200 | 10 | 10 | 1.38 |



<< The application of Cast Iron Slotted Floor in Farrowing unit



<< The application of Cast Iron Slotted Floor in Farrowing unit



Drinking and Spray System

Drinking Facilities

For modern pig farms, duckbilled and nipple type drinking devices are most common selections. For the purpose of water conservation, some pig farms adopted drinking bowls and drinking troughs. It is common phenomenon for pig farms to neglect detail design in facility selection. However, it should not be forgotten that drinking system is very crucial in the pig production process.

1. Under group feeding, every 10 pigs are allocated with one drinking device, and the flow rate selection depends on the pig body size.
2. When using the drinking trough, in order to save water, it is suggested to also install water level control valve, one for every 15 sows.
3. Installation height: the duckbilled drinking trough installation height should exceed the average height of the pig group upon slaughtering. And the height can be determined by experience, rather higher than lower; the installation height of the drinking device is adjustable, for smaller pigs, a stone slate under the drinking device can assist the drinking. The drinking device needs to be installed with a certain angle (30-45°).



4. Drinking bowl should be installed rather lower than higher according to need. With small lower jaw to store water, lower jaw of the pig

needs to be soaked in the drinking bowl. If the bowl is installed too high, then the pig cannot drink enough water.

◆ **Application**



Application of duckbill drinker in fattening unit



Application of duckbill drinker in nursery unit

Spray Sterilization System

In pig farm management, the control of feed entry is very important. The failure in control the entries or feed quality can lead to serious spread of diseases. To prevent that from happening, sterilization is the most common and basic procedure. Comprehensive and no-dead-corner sterilization can save large amount of cost spent on immunization and medical treatment. In order to conduct effective sterilization and control diseases from prevalence, correct sterilization method is the key. Our company provides a comprehensive sterilization system for the welfare of pigs and for the convenience of our clients.

◆ **High-pressure Spray System**

High-pressure spray system adopted high-pressure plunger pump, which filters the water, and ensures the whole system to operate under optimal conditions; after the compression by high pressure unit (working pressure 70-120kg), the system transmission is complete. The spray comes from high pressure ducts. The water

drop will form 1-10 micron natural particles, atomizing the entire space. These tiny artificial particles can float in the air for long period of time. The single spray-head can produce mist area of 3~5 meter by 1~2 meter.

The particles from atomization can float to anywhere in the pigsty, and kill germs and virus from any unreachable corners. In order to make high-pressure washing easier, the suggestion is to first moist

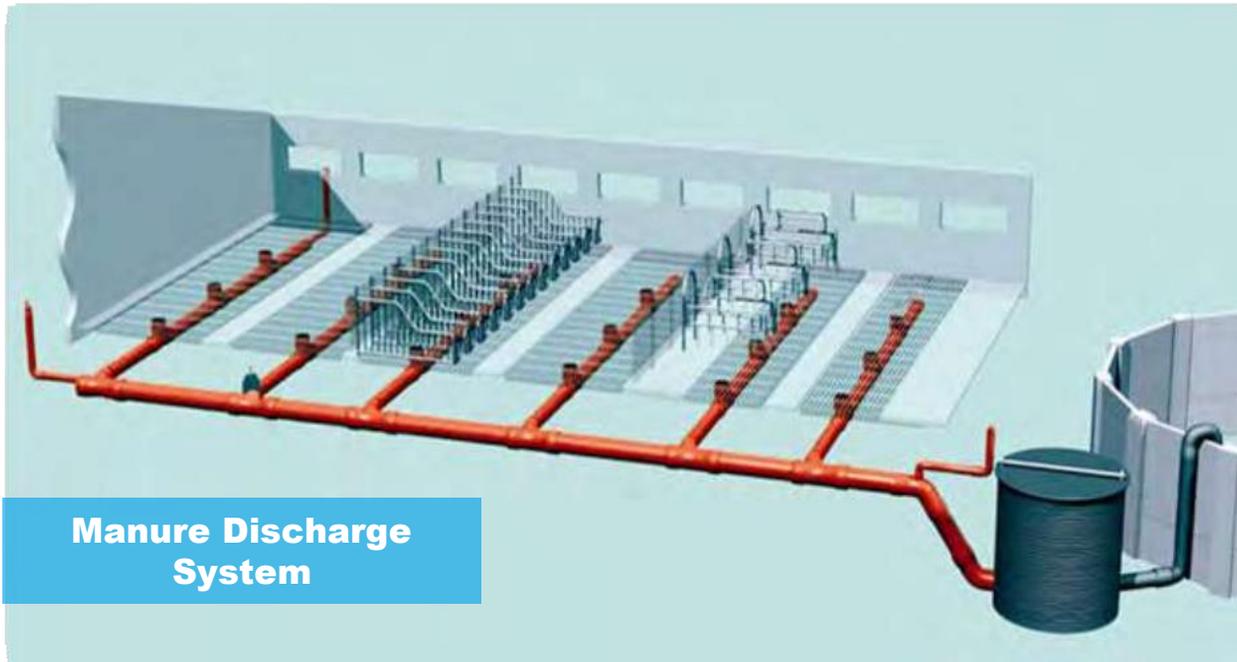
the dirt on the surface of the facilities and walls. This will save water and make the cleansing more thoroughly.

Main component of high-pressure spray system:

1. main engine (outer box, high-pressure pump, motor, water tank, filter system, control system, damping system);

2. water softening system;
3. transmission ducts and fittings, and spray-head.





Sketch picture of iphon piping system

Mixed slurry and siphon piping system

◆ Working principle

Manure, urine and slurry are pooled under the pig houses through the slotted floor. After two weeks or one month, pull the plug, and manure, urine and slurry will automatically flow into

the manure collection tank through the syphon tubes under the houses, then separated with the solid-liquid separator.

◆ Advantages of the Mixed slurry + Siphon piping system

1. Saves land, is a recommended system for waste discharge in Europe and America;
2. Compared with dry slurry cleaning, significantly saves labor and work load;
3. Compared with flushing cleaning, saves water, discharge total is less and more efficient;
4. Based on the principle of siphon and natural force, with no

- electricity consumption, saves energy;
5. In favor of the utilization of water resource, organic fertilizer manufacturer and biogas projects;
6. Less investment, short installation period;
7. Easy to operate and easy to maintain, low operation cost and long service life.

The manure discharge system should be as part of the pig farm planning before construction, with underground discharge system installed beforehand. If the system is only considered after

the construction of the pig farm, it will cause renovation and affect the normal operation of the pig farm.





◆ Major parts of the system

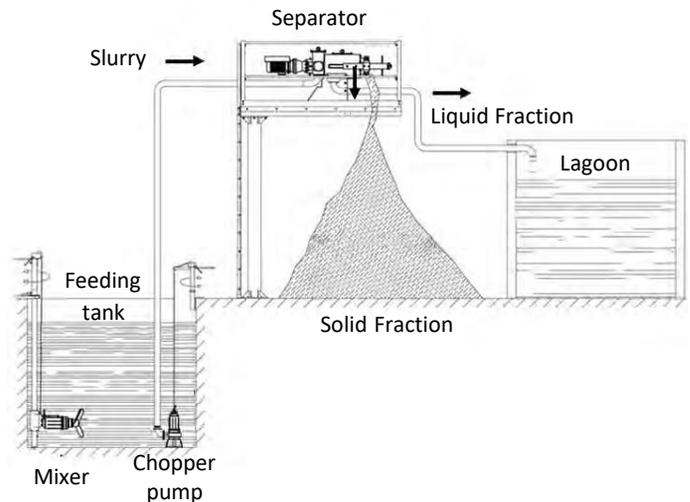


Separation System

Slurry separation technology manages to separate the solid and liquid fractions of the slurry, and makes it more convenient for storage, transportation and utilization. The separation process is an essential step in the manure management.

◆ Working Principle of the Separation System

The slurry is collected into the sewage tank via siphon duct system; mixer and chopper pump are installed inside the sewage tank and keep stirring and mixing the manure; after even mixing, the slurry is pumped up by the submersible chopper pump into the separator; the solid fraction after separation falls directly onto the platform below. The liquid fraction is discharged into the storage tank, after sometime, can be used directly as organic fertilizer or for farm irrigation after dilution. The solid fraction after separation is of low moisture content and thus convenient for transportation. It can be used for the manufacture of organic fertilizer, or to be sold as raw material directly.



The solid part after separation



The liquid part after separation



◆ SM series screw extrusion separator

The working principle of the separator is screw extrusion separation technologies. When the chopper pump pumps the slurry into the separator, the solid fraction falls from the front of the machine after screw extrusion, while the liquid fraction goes into the sewage tank via the drain pipe.



◆ PTS Submersible Chopper Pumps

PTS series submersible chopper pump has advanced multi-stream impeller. It can chop the solids in the liquid and pumps them up properly.



◆ Mixer

This machine is mainly used for slurry mixing, stirring and circulation. It pre-sets a good working environment for the chopper pump, improves the pump performance, and effectively prevents the precipitation of suspended solids in the slurry, to avoid blockage of the ducts, and enhance the processing capacity of the overall system.



◆ Liquid Level Meter

Liquid level control point can be freely set within the effective depth of the pool. When the liquid level reaches the high level, the mixer, chopper and separator operates automatically, as the separator continues to process the slurry, and the liquid level of the pool falls to the pre-set low liquid level, the separator, mixer and chopper pump will automatically shut down.



◆ Application



Biogas Projects

Livestock manure, straw, sewage and other organic matter after pretreatment and anaerobic fermentation in airtight pool. Biogas can be used for combustion, cooking, heating, lighting, power generation etc., The biogas plant fermentation back out of the material liquid and sediment contain rich nutrients, can be used as high quality fertilizer.

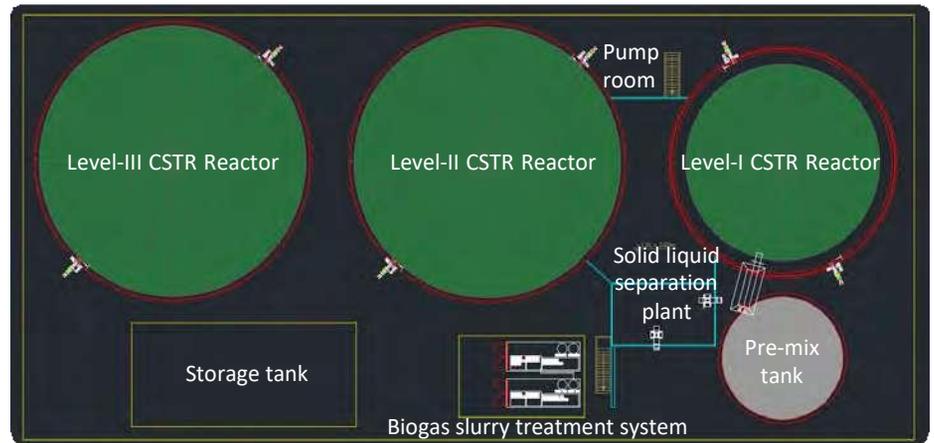
According to the technology of biogas production, biogas engineering can be divided into two major categories of energy ecological and energy environmental protection.

◆ Ecological Method

Energy ecological method is a processing way of Livestock farm wastewater after anaerobic digestion treatment as Farmland sewage sludge. Anaerobic biogas engineering of "Energy ecotype" depend on land treatment system, so it demands enough farmland to consume slurry, renewal after anaerobic fermentation biogas to realize breeding match with planting industry.

◆ Environmental Method

Environmental method is a processing way of livestock farm wastewater after anaerobic digestion treatment to standards or reclamation as the ultimate goal.



First to third order fermentation biogas system project diagram

◆ Strengths of Kingpeng's Biogas System Project:

1. Hazard-free and recycling treatment of organic waste from pig farms, including manure and crushed cattle corpse;
2. The biogas project can digest all kinds of organic waste from the pig farm (including kitchen waste and pig production waste);
3. Improvement on existing biogas facilities;
4. Tertiary mesophilic biogas fermentation; high unit biogas rate at $1.2\sim 1.8\text{m}^3/\text{m}^3$ per day; thorough fermentation;
5. Based on the individual need of each client, the biogas generated by the system can be used for different purposes, such as network electricity generation, heating provision and biogas purification.



Biogas system project site >>

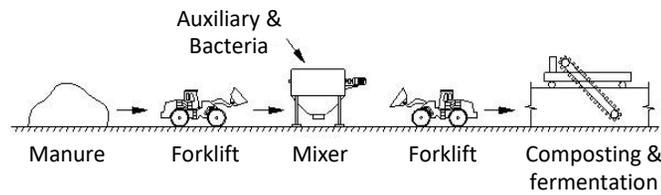
Organic Fertilizer Manufacture

We has a comprehensive set of solutions to combine planting with the breeding industry. The manufacture of organic fertilizer is the most important sector in our system.

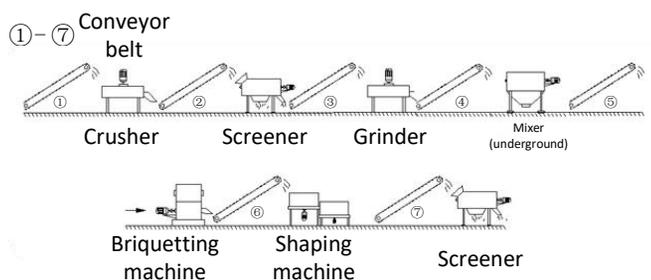
Technical Procedure

After collection, the manure is added with 11% moisture content straw powder or bran, and made into 65% moisture content half-dry material. The manure can be used directly for composting, added with 0.1% compound bacteria (by finished product). The composting and fermentation process takes 5 days. An automatic plough machine is used to speed up fermentation, because plowing can quickly reduce moisture content. When the temperature reaches 60° C after 2 days, the manure is sent into fermentation tank for composting. After that the aerobic fermentation will take about 12 days.

After the aerobic fermentation, the mixture is taken out with a forklift and sent to the composting yard for second time fermentation. Composting yard process is anaerobic fermentation, and the stacked height can reach 2m. After screening and repacking, the product is ready for sale.



<< Organic Fertilizer Production Technical Procedure



<< Briquetting Technical Procedure

Equipment Photos



Intelligent biochemical fermentation machine



Screener



Automatic packing machine



Belt conveyor and rotary mixer



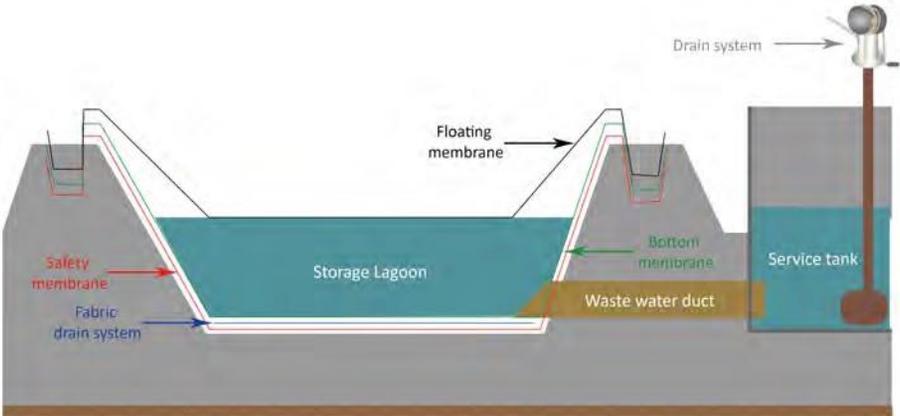
As a leading company in the husbandry machinery and facilities industry, We has a comprehensive system of solutions for waste treatment. This leads us to the “membrane” solution that solves all the problems mentioned above. Our recommended membrane storage technology is a solution that takes all three factors— labor, cost and profit into consideration.

◆ Application



◆ Technical Principles

The storage lagoon functions via the membrane technology. First a lagoon needs to be excavated. Location of the lagoon can be within the manure treatment area or adjusted according to need. After the construction of the lagoon, slurry collected from the pigsties can be stored in the space between the bottom and floating membrane. As the volume grows, the floating membrane will rise. Also, a draining pump is installed on the membrane to pump out the rainwater by manually switching on the pump on time. A service tank is constructed beside the lagoon, the slurry is transferred into and out of the lagoon via the service tank. There is also a pump installed in the service tank to transfer the treated manure into spreaders to irrigate farmland. With such a system, no concrete protection layer is needed during the construction of the lagoon, thus saving cost and labor.



◆ Application



Welfare Floor System

The floor bears almost all the activities of the pigs. It has a great influence on the pig's feet health, sleeping comfort, and hygiene condition of their living environment, and is an important part of the pig farm facilities. We insist on prioritizing the pigs' welfare, and provides different types of concrete slotted floors, plastic slotted floors and cast iron slotted floors by considering different herd characteristics and actual needs.

Concrete Slotted Floors

◆ Concrete slotted floor manufacture line

The manufacturing line, from the technical design, raw material selection and processing, and pre-casting of the concrete slotted floor. The floors produced are not only durable, and can also provide the pigs with comfortable sleeping and clean environment. The floor system can protect pigs' feet with special care, reducing the risk of foot disease, and increasing slaughtering rate.

Step1:Pre-casted in manufacturing plant, and fine polishing into the final product
Step1:Manufacturing on site or transported to site via logistics
Step1:Mechanized project installation
Step1:Successful application in pigsty

◆ Variable Size, Flexible Choices

Floor panel can be as long as 3 meters. Increased floor panel length can reduce support structure, and construction cost. Different sizes are available to suit the individual need of clients.



◆ Main Sizes

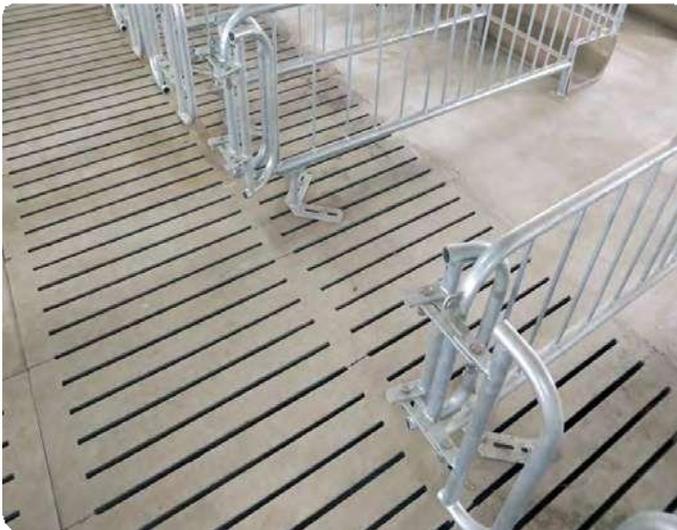
Floor panel can be as long as 3 meters. Increased floor panel length can reduce support structure, and construction cost. Different

3000x500x110mm
2400x500x100mm
2000x500x100mm

1800x500x80mm
1500x500x80mm

sizes are available to suit the individual need of clients.

Application



Photovoltaic Building of Pig Farm



Building Photovoltaic (PV) in pig farms is referring to the photovoltaic power generation system installed on the farm buildings. This system is to utilize the solar power obtained from PV panels installed on building façade and rooftop in electricity generation.

Photovoltaic building makes use of the green solar energy, opening up a new mode for the pig farm's healthy development, environment protection, utilization of new energy and sustainability.

Global Husbandry can provide two types of PV power generation solutions: Building Attached Photovoltaic and Building Integrated Photovoltaic.

Application of PV Building in Pig Farm >>



Successful Projects

Dongheng pig farm project in Yunnan province



Successful Projects

Scandinavian pig farm project in Jiangsu province



Successful Projects

Zhongyu pig farm project in Shandong province



Successful Projects

Jiangquan pig farm project in Shandong province



Successful Projects

Longda pig farm project in Shandong province



Successful Projects

Zhongyang pig farm project in Shanxi province



Successful Projects

Zhongliang pig farm project in Jiangsu province



Successful Projects

Xiangcun pig farm project in Beijing





We live our values.

Excellence · Passion · Integrity · Responsibility

We take a holistic approach and provide integrated solutions for livestock projects. We are convinced that successful projects demand an effective technology transfer process, one that enables and empowers local teams to properly handle such complex activities. This is why we offer professional technical guidance and support as an essential part of our commitment to our customers.