

Accelerated processing of manure into compost



From waste to income in 10 days

Significant reduction in time and costs for manure processing and poultry waste into compost for sale. Lack of fines and claims, smells and complaints from the population.

Ideal for daily download

Daily loading volume 10–14 m³: manure, bedding, feathers, etc., humidity up to 75%. The total volume of the fermenter is 102 m³. The first 10 days you only fill, then fill and unload daily.

The daily yield of finished compost is 4–5 m³ (humidity 30–35%).



Manure in the loading bucket



Ready compost after 10 days

High energy efficiency

Heating and processing of manure into compost occurs due to the active reproduction of aerobic bacteria. Electricity consumed for air supply and mixing.

The average daily consumption of the fermenter is 730 kW per day (in winter).

Estimated power consumption - 40 kW.

Works in any weather

The main advantage of the fermenter is stable operation in rain, snow, heat and frost. up to -40 °C. There will be no leakage and soil pollution even in the heaviest rain and wind.



Eco-friendly and odorless

The temperature in the fermenter reaches 60–70 °C, in which all pathogenic flora is destroyed. Polluted air is removed from the fermentation tank to the heat exchanger, after which water filtration takes place and the unpleasant ammonia smell is completely removed. The air is returned to the fermenter.



Versatility and ruggedness

Manure and poultry waste are loaded into the fermenter, without any sorting. The fermenter requires a minimum of attention from the staff, mainly loading the manure and unloading the finished compost.

Savings on fines and permits / licenses

The use of a fermenter changes the approach to the determination of litter, instead of waste of the 3rd hazard class, raw materials for the production of fertilizers. This eliminates costs: →

- for the state ecological expertise of the composting site project;
- for licensing a waste disposal facility of hazard classes 1–5;
- to pay for negative impact on the environment;
- to be included in the state register of waste disposal facilities;
- fines for violating waste management rules.

Timing

PRODUCTION: 7-15 working days from the date of prepayment + testing at the factory 30 working days.

DELIVERY: 50-90 working days from the date of shipment from the manufacturer's factory (depending on the method and region of delivery)

INSTALLATION CHEF: 15 days.

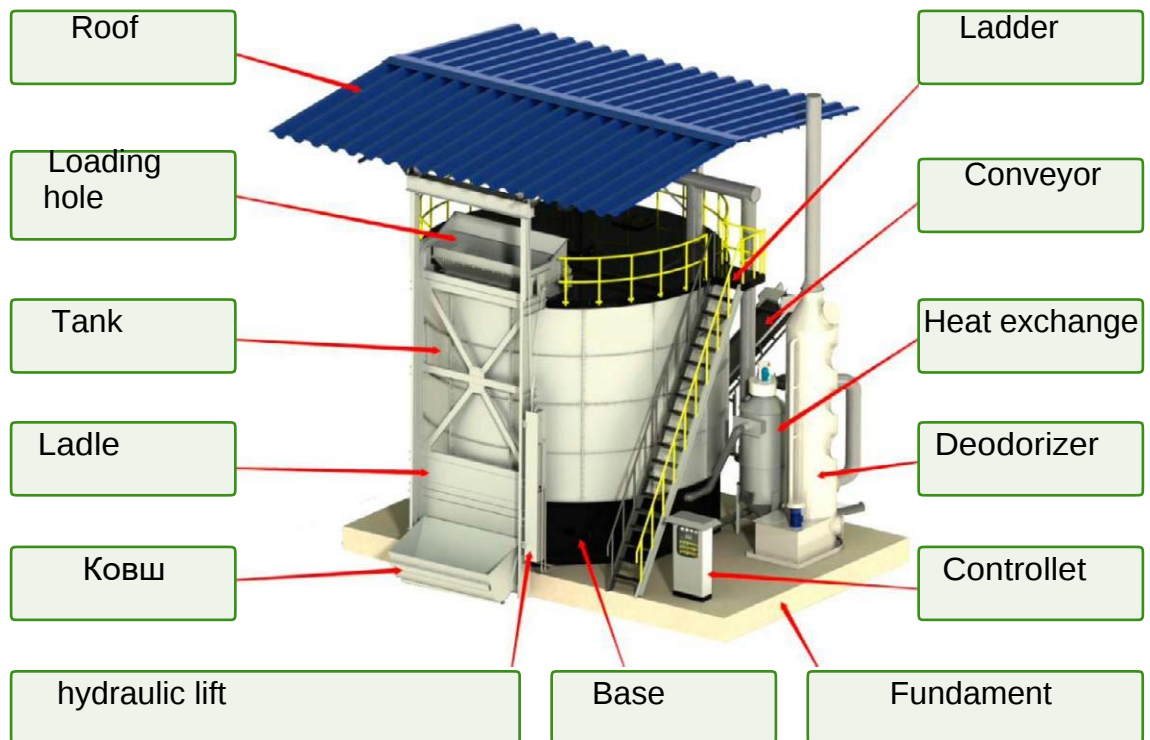
Guarantee

Equipment - 12 months. From corrosion (on the inner walls of stainless steel and blades) - 5 years.

We will supply free of charge parts that fail during the warranty period. After the warranty period, service is available for an additional fee.



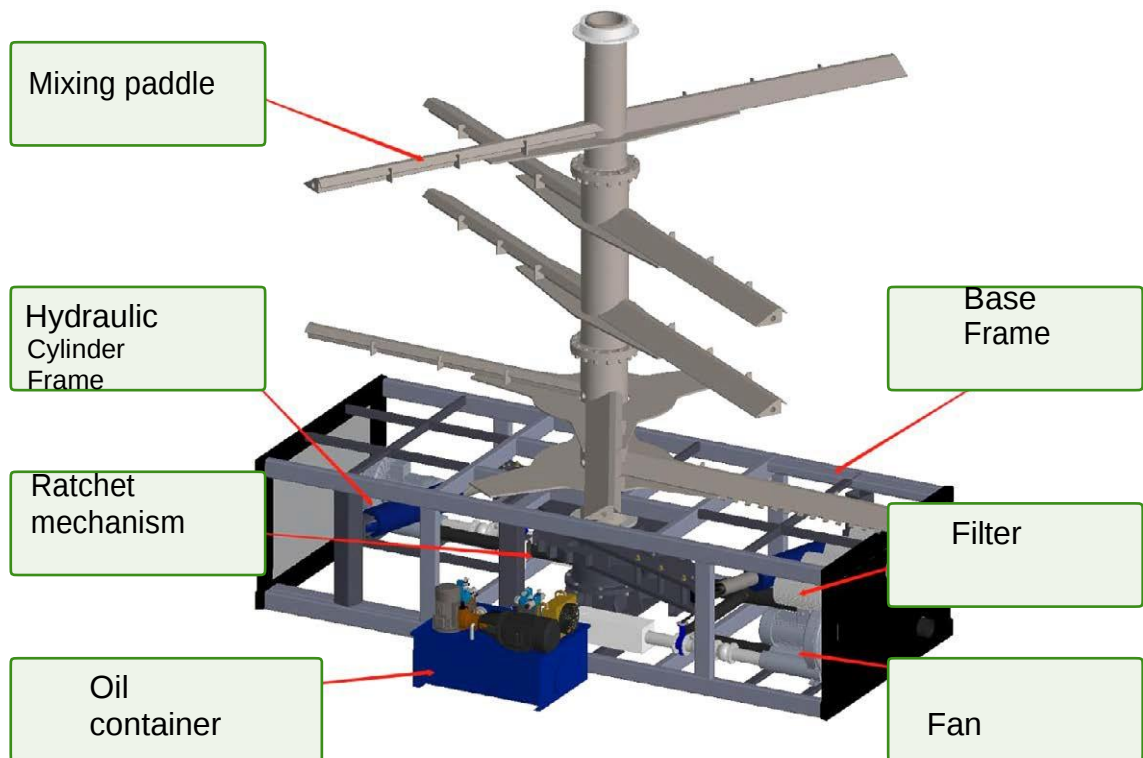
Description of equipment and process



The unit is a cylindrical container (tank) with a volume of 102 m³, a diameter of 5500 mm and a height of 8846 mm

The fermenter is equipped with a control cabinet for full automatic trouble-free operation. Inside there is a vertical mixer with blades in which oxygen supply holes are evenly distributed to speed up the fermentation process.

The mixer is driven by hydraulic cylinders and makes a complete revolution in 20 minutes. The blades rotate with stops.



When unloading, there is a continuous movement of the blades.
Two blowers constantly supply air into the tank.

Loading of raw materials is carried out by means of a ladle and a hydraulic lifter in the top loading opening.

The air exchange and supply system provides a continuous, powerful air flow to create an aerobic reaction inside the fermenter, excess heat and moisture is removed from the fermentation tank to the heat exchanger, polluted air after the heat exchanger enters the deodorization tower, where water filtration takes place and the unpleasant ammonia smell is completely removed. The air is returned to the fermenter.

Working principle of the fermenter

Due to constant mixing and continuous air supply, a favorable environment is created for the development of aerobic bacteria.

Reproducing, bacteria absorb organic matter from poultry excrement and remains, proteins and oxygen and produce ammonia, carbon dioxide and water condensate..

At 45 °C - 70 °C there is an increased reproduction of bacteria. At temperatures above 60 °C, harmful and pathogenic bacteria, parasite larvae and other dangerous elements are destroyed. from excrement and carcasses of birds..

At the same time, beneficial bacteria at this temperature, humidity and acidity continue to exist. When adding fresh raw materials in the tank, the fermentation process continues and disinfection of these wastes (due to constant mixing).

The finished organic fertilizer from the unloading machine is sent directly to the storage warehouse or to the packaging unit..

Fermentation equipment is installed directly on the territory of the factory (in an open or closed area).



Specifications

Model	BLX-3060	Description
Barrel height, мм	5500	Total height 7800
Internal Volume, м³	102	
Total weight, тонн	At least 28	
Bucket volume, м³	1,3	
Incoming volume per day, м³	10–15 (including bird droppings and poultry production waste, humidity up to 75%)	Loading is carried out by a lifting bucket and a hydraulic lift, which are included in the scope of delivery..
Outgoing volume per day, м³	Max. up to 4–5 m3 (humidity approx. 30–35%)	Unloading occurs through the unloading hatch at the bottom of the barrel
Necessary energy suply	400 V, 50 HZ, 3 phases	
Botton fan (kW)	22	2 × 11
Hydraulic station (kW)	10,5	7,5+3
Fan forced draft (kW)	3	
Total power plant incl. heating (kW)	40,9	Total energy consumption of the fermenter approx. 700 kilowatts / day
Working Power (kW)	25	
Required area for instalation	54 м²	6 × 9 м

Model	BLX-3060	Destription
The thickness of the inner walls of the barrel	2,5 mm SS304	Laser cutting, robotic welding.
The thickness of the outer wall of the barrel	4 mm carbon steel + hot dip galvanized	Laser cutting, robotic welding..
Barrel inner thickness	55 mm Polyurethane	Intermediate polyurethane insulation, inner and outer cylinder. The surface of the cylinders is connected by a heat-insulating bridge to avoid heat loss from the inside..
bottom thickness and the top of the barrel	6 mm	
Shaft diameter	1 step - 90 mm, 2 stage - 35 mm, 3 step - 35 mm	Made on a large CNC machining center, laser welding, robot welding
The thickness of the blades on the shaft	140 mm	Manganese steel plates welded by robot
Air filtration	4 sets Cleaning - once a week Filter replacement - 1 time in 6 months	After the outside air passes through the air filter, it becomes more efficient for use.
air ducts	Polypropylene with a diameter of 315 mm	Material: corrosion resistant, high temperature
Computer control system	1 set optional installation Schneider, Siemens	Wires and cables comply with national standards (outer wires are protected by threaded tubes)



