



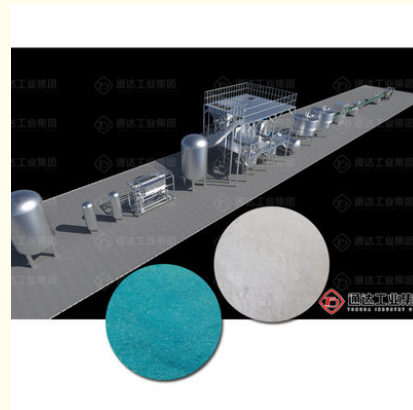
## Biomass Organic Liquid Fertilizer Making Machine Humic Acid Water Soluble Fertilizer Production Line

Our Product Introduction

for more products please visit us on [organicfertilizerequipment.com](http://organicfertilizerequipment.com)

### Basic Information

- Place of Origin: China
- Brand Name: TONGDA
- Certification: ISO,CE
- Model Number: TDSRF
- Minimum Order Quantity: 1 set
- Price: Negotiable
- Packaging Details: According to customer requirements
- Delivery Time: 10-15 days
- Payment Terms: L/C, D/A, D/P, T/T, Western Union, MoneyGram
- Supply Ability: 100 units per month



### Product Specification

- Name: Humic Acid Water Soluble Fertilizer Production Line
- Voltage: 380V, 220V Or Customerized
- Raw Material: Food Residue+animal Manure+organic Waste
- Total Power: ≈280KW
- Personnel Configuration: 3-5 People/class
- Microbial Production Capacity: 10 Tons/day
- Highlight: **Organic Liquid Fertilizer Production Line, Biomass Organic Liquid Fertilizer Production Line**



## Product Description

### Biomass Organic Liquid Fertilizer Making Machine Humic Acid Water Soluble Fertilizer Production Line

#### Selection of fermentation process for water-soluble fertilizer production line:

According to the customer's raw material situation, it mainly includes livestock waste such as pig manure and cow manure.

Utilize these waste materials to produce liquid plant nutrient solutions. Due to the high moisture content of the raw materials and the finished product being a liquid nutrient solution, the wet anaerobic fermentation process was chosen.

The anaerobic fermentation process does not require the addition of additional bacterial strains, has low operating costs, and is very mature. It thoroughly decomposes harmful substances in pig manure and other aquaculture wastewater, and can effectively remove "Escherichia coli" and "roundworm eggs" in aquaculture wastewater.

#### Selection of raw materials for water-soluble fertilizer production line:

1. Fertilizers rich in N, P, and K elements, such as urea, monoammonium, ammonium dihydrogen, potassium nitrate, potassium sulfate, potassium chloride, potassium sulfate, ammonium nitrate, and phosphorus.
2. Add raw materials such as humic acid and amino acids according to the type of product.
3. Various trace elements: such as zinc, copper, borax, magnesium, iron, etc.
4. Organic matter stock solution.

#### Process flow of water-soluble fertilizer production line:

1. Select the required raw materials according to the production formula, and manually feed them to the feeding station.
2. The system automatically cuts materials.
3. The raw materials enter the crushing system and are finely crushed to ensure consistent particle size between the raw materials.
4. After crushing, the raw materials enter the reaction vessel, softened water is added and stirred at high speed to dissolve the raw materials. At the same time, the solution in the reaction vessel is heated (1. steam is introduced; 2. electric heating;), with a temperature between 35 ° -60 °, and adjusted according to the different raw materials. Due to some raw materials being difficult to dissolve, a co solvent needs to be added to enable the raw materials to dissolve quickly and fully (separate dissolution between raw materials).
5. The fully dissolved solution system automatically enters the compounding tank according to the formula. Due to different raw materials, complexation reactions, acid-base reactions, and other precipitation substances may occur between the raw materials. At this time, suspension agents need to be added and further dissolved through the grinding system. At the same time, to avoid excessive heavy metals in the production of finished products, chelating agents need to be added to chelate and separate metal ions.
6. The compounded water-soluble fertilizer is filtered to remove impurities and precipitates from the solution and enters the finished product tank. At the same time, the solution is cooled to normal temperature through a cooling system.
7. After cooling, the finished water-soluble fertilizer is packaged on the production line, which includes automatic coding, automatic filling, automatic weighing, automatic capping, and capping system to complete the packaging.

Raw Material Conveyor	With superior corrosion resistance and high wear resistance, belt conveyor is used here to deliver the raw materials. The crossbeam is made of channel steel, and the fence is made of stainless steel. Continuous supporting roller design ensures no dead end & accumulated materials, convenient to clean. Different types of conveyors are chosen based on project requirements.
Batching	Take advantage of the static measuring when batching, which makes the formula more accurate. Each ingredient has two feeding methods, fast feeding and slow feeding, controlled by frequency converter. The structure is designed according to the difference in liquidity and proportion of each ingredient. Multiple formulas can be stored in batching system, and it is easy to be modified. Batching accuracy reaches to $\pm 0.1\%$ - $\pm 0.2\%$ .
Mixing	Horizontal double ribbon mixer is adopted here, which consists of motor reducer, feed inlet, upper shield, ribbon mixing device, discharging device, outlet, etc. It is generally configured with pneumatic cambered flap valve. When close the valve, the cambered flap is perfect fit with the cambered surface of the barrel. Therefore, there is no mixing dead space, better for even mixing.



**FAQ:****1. Are you trading company or manufacturer ?**

We are a manufacturer with a history over 40 years and have realized one-stop service for design, manufacture, installation, debugging and technical training.

**2. How long is the delivery time?**

For standard machines or Components, it would be 5-10 days; For non-standard machines and customized machines according to clients specific requirements, it would be appointment time.

**3. Do you arrange shipment for the machines?**

Yes, we will do that. For FOB or CIF price, we will arrange shipment for you. For EXW price, we will assist you in arranging shipment.

**4. How about your product after-sales service?**

Normally we provide video and written technical support. If necessary, our engineers can also provide on-site service. Our product accessories can be selected according to the actual needs of the customer to choose the most appropriate way to deliver.

**5. What kinds of certificate you have?**

ISO 9001: 2015 SGS and we can make other certificates according to customers' detailed requirements.

**6. How to guarantee the quality and operation before loading?**

We have our own quality control department and have advance quality control system while from raw materials to finished products. All the machines and production lines shall be 100% checked and tested before delivery.



TONGDA HEAVY

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