

3000L Liquid Heating Homogenizing Mixer



The heating homogenizing stirring tank is a multifunctional equipment that integrates heating, cooling, stirring and homogenizing functions. It is widely used in food, cosmetics, pharmaceuticals, chemicals and other industries to process materials that need homogenization, emulsification or fine mixing. The equipment ensures that the temperature of the material can be accurately controlled during the production process through efficient heating, cooling and homogenization systems to maintain product stability and quality consistency.

1. **Material**

The heating homogenizing stirring tank is made of high-quality stainless steel 304 and 316L, which has good corrosion resistance, high temperature resistance and easy cleaning, and meets the safety and hygiene standards of food and pharmaceutical grades. The material is durable and suitable for the processing of various liquids or viscous materials.

2. **Heating method**

- ****Jacket heating****: The tank body is equipped with an external jacket, which can evenly transfer heat through electric heating (100 degrees Celsius), steam heating (180 degrees Celsius) or thermal oil (300 degrees Celsius). The jacket heating efficiency is high, ensuring that the material in the tank is evenly heated, which is suitable for the process requirements of different materials.
- ****Temperature control****: The equipment is equipped with a precise temperature control system, which can accurately set the heating temperature to prevent the material from deteriorating due to overheating.

3. **Cooling method**

- ****Jacket cooling****: In addition to the heating function, the jacket can also be used for cooling. The cooling medium (such as cold water or tap water) circulates through the jacket, takes away the

heat, and quickly reduces the temperature of the material in the tank. It is suitable for processes that require rapid cooling.

- **Forced cooling system**: Some equipment is equipped with an independent cooling system, such as a chiller or an external cooling water system, to achieve faster and more efficient cooling of the material, ensuring that the product temperature quickly reaches the target value, especially suitable for temperature-sensitive materials.
- **Temperature sensor**: Real-time monitoring of material temperature, precise control of the cooling process, and avoidance of overcooling or uneven cooling.

4. **Stirring system**

- **Multi-stage stirring device**: The equipment is equipped with an efficient stirring device, usually including main stirring and wall scraping stirring. The main agitator is used to mix the materials evenly, while the scraper agitator ensures that the materials do not adhere to the tank wall, improves the mixing uniformity and prevents the materials from overheating or overcooling.
- **Adjustable stirring speed**: According to the process requirements of different materials, the stirring speed can be adjusted from 0-65RPM, which is suitable for processing various materials from low-viscosity liquids to high-viscosity pastes to ensure the uniformity of mixing.

5. **Other applications**

- **Pesticides and fertilizers**: Used to produce emulsion pesticides and liquid fertilizers to ensure uniform distribution of active ingredients and improve product effects.
- **Personal care products**: For example, toothpaste, shaving cream, lubricants, etc., through heating and homogenization processes, the product texture is smoother and more stable.

Parameter

Model:	HWHM-F-3000L
Working capacity:	3000 Liters
Heating method:	Steam
Mixing type:	Upper frame oar scraper mixer
Mixing motor power:	11KW, Siemens motor
Mixing frequency inverter:	11KW
Mixing speed:	0-65rpm
Homogenizer type:	Bottom homogenizer
Homogenizer power:	22KW, Siemens motor
Homogenizer frequency inverter:	22KW
Homogenizer speed:	0-3000rpm(50Hz)/0-3600rpm(60Hz)