DRAWELL
Artist of Science

Medium Test Type High Pressure Homogenizer

Innovation

Drawell medium test type high pressure homogenizer launched a range of instruments covering 50L/ H-500L /H, which can be used in bioengineering, pharmaceutical engineering, food and other industries R & D and small scale pilot production requirements at various stages, with easy operation and high processing efficiency.

Features

1. **High crushing efficiency** The particle size of the material can be evenly refined to less than 100nm, and the crushing rate is greater than 95%.
2. **Pressure adjustable** The homogeneous pressure is adjustable from 0 to 150Mpa.
3. **Flow adjustable** Variable frequency flow control system can adjust the flow size according to needs.
4. **Temperature control** Cooling plunger component temperature to increase single use time.
5. **Safe and reliable** Mechanical safety valve, overload stop.
6. **High hygiene level** Adopt 316L stainless steel material that meets food and drug requirements.
7. **Zero residue** Built-in drain valve structure can drain materials.
8. **Corrosion resistance** The seals are made of corrosion-resistant materials.
9. **Wear resistance** The valve body is diamond material.

Applications

◆ **Bioengineering**

Handle microbial samples and algal cell breakage.

Study on the effect of plant protein function under different homogeneous conditions.

◆ **Materials engineering**

Application in ultrafine grinding processing of pigment dyes.

Optimization of cosmetics (nanoparticle emulsion, liposome) process.

◆ **Food industry**

The effects of different homogenization conditions on physicochemical properties of food and beverage were studied.

Application of non-heating sterilization technology in liquid food.

◆ **Biomedical Engineering**

Optimize the extraction and preparation process of effective pharmaceutical ingredients (fat milk, nano-suspension, lipid nanoparticles, liposomes, flavonoids).

Study on the fusion of extracts of traditional Chinese medicine and modern pharmaceutical technology.




Sample example

Vegetable protein	**soybean protein, peanut protein, sweet potato protein, etc.**
Plant tissues	**Tremella spores, hawthorn leaves, loquat leaves, ginger roots, etc.**
Algal cells	**Spirulina cells, Candida hair cells, chlorella cells, etc.**
Microbiota	**Yeast, Escherichia coli, Schizomycetes, etc.**
Liquid food	**Food and beverage, dairy products, juice, etc.**
Paint homogenate	**Carbon black paint homogenate, phthalocyanine green paint homogenate, phthalocyanine blue paint homogenate, purple 23 paint homogenate, etc.**

Specifications

Model	**PH-A060**	**PH-A100**	**PH-A200**	**PH-A300**	**PH-A400**	**PH-A500**
Capacity（L/H）	**60**	**100**	**200**	**300**	**400**	**500**
Dimensions(cm^3)	**100*150*120**	**100*150*120**				
Weight（kg）	**400**	**500**				
Plunger quantity	**2**	**3**			**3**	
Driving method	**Pulley**	**Pulley**			**Gearbox**	
Motor power	**7.5kW 8 grade**	**15kW 8 grade**			**37kW 6 grade**	
Max. pressure	**1500bar**					
Voltage and frequency	**380V，50Hz**					
Variable frequency flow control system	**Frequency converter regulating flow rate**					
Pressure gage	**High precision pressure sensor + display panel or sanitary diaphragm digital pressure gauge**					
Homogeneity grade	**First order**					
Vestigital	**Zero residue**					
Voltage regulating mode	**Manual pressure regulation/pneumatic pressure regulation**					
Cooling mode	**Plunger cooling**					
Feeding mode	**Self-priming check valve structure**					
Dynamical system	**Crankshaft connecting rod structure, crankshaft and piston by bearing shell closed connection**					
Power system lubrication	**Liquid oil splash lubrication**					
Safety protection	**Mechanical safety valve set pressure, overload stop**					