

***PRODUCT:** _____ Lab Homogenizer: Detailed knowledge of the principle and processing method of lab homogenizer*

DESCRIPTION: The lab homogenizer is the ideal equipment for homogenizing, emulsifying, spraying, blasting crushing, cell breaking and transporting liquid materials (liquid-liquid phase) or (liquid-solid phase) with viscosity less than 0.2Pa ·S and a temperature less than 80°C.



I. principle of lab homogenizer:

Homogeneous is conducted in homogeneous valve, without the homogeneous premixed material, through the increase of the reciprocating pump, inlet valve with high pressure and low velocity area, when the materials into manageable tiny gap between valve seat and valve stem, the velocity of the sudden increase, the value of up to 300 meters per second, at the same time, corresponding to the enormous pressure drop, in a very short time and small space inside the formation of strong cavitation effect and eddy current effect, and produce high speed impact and homogeneous ring. Strong shear and crushing effect on material particles. Through the above effect, the original thick emulsion or suspension plus engineering ultra-fine, uniform and stable liquid-liquid emulsion or liquid-solid dispersion. When the emulsion is processed by a lab homogenizer, single homogenization can be used. When two-stage pressure regulation is used, about 10% of the total pressure is applied. Applied to secondary homogeneity, this will improve the stability of most emulsions. A single stage device is usually used for diffusion processing.

II. Processing range of lab homogenizer:

1. Dairy products and ice cream:

Milk, dessert, butter, cheese, ice cream, condensed milk, with cheese, yogurt and so on.

2. Food industry and beverages:

Fruit juice, jam, all kinds of fruit type natural drinks, vegetable juice, baby food, condiments, tea drinks, chocolate, soy milk, essence and so on.

3. Biotechnology:

Yeast, Escherichia coli, cell breakage of algae, protein extraction, application of enzyme engineering, etc.

4. Cosmetics industry:

Cream, lipstick, facial cleanser, silicone oil emulsion, perfume, skin care products, cosmetics, etc.

5. Pharmaceutical industry:



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Antibiotics, antacids, intravenous emulsions, coating of tablets, liquid Chinese medicine, etc.

6. Chemical industry:

Paint coatings, various emulsifiers, fuel oil, disinfectants, insecticides, photosensitive latex, rubber pulp, resin pulp. Thickener, bentonite, carbon black, magnesium oxide, titanium dioxide, etc.

III. Technical parameters of lab homogenizer:

Model	Flow L/h	Maximum pressure Mpa	Rated pressure Mpa	Motor power KW	Shape size (mm) (Length*Width*Height)	Main Purpose
W-VE360- -0.3/25	300	25	20	3.0	960*540*980	Homogenization, emulsification, spray
W-VE360- -0.5/25	500	25	20	5.5	960*540*980	Homogenization, emulsification, spray
W-VE360- -0.5/30	500	25	20	5.5	960*540*980	Homogenization, emulsification, spray
W-VE360- -1/30	1000	30	25	160	1030*745*990	Homogenization, emulsification, spray
W-VE360- -0.5/40	500	40	35	7.5	1030*650*1120	Homogenization, emulsification, spray
W-VE360- -1/40	1000	40	35	15	1315*1100*1290	Homogenization, emulsification, spray
W-VE360- -0.06/60	50	60	50	2.2	950*610*970	Homogenization, emulsification
W-VE360- -0.1/60	100	60	50	3	950*610*970	Homogenization, emulsification
W-VE360- -	500	60	50	11	1315*1100*1290	Homogenization, emulsification,

0.5/60						spray
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1.Application:

High pressure homogenizer is a kind of versatile equipment which can make liquid substance into homogeneous thin.

1. Apply for drink and food industry such as milk, yogurt, ice cream, ketchup and so on.
2. Apply for cosmetic, lipstick, skin cream, shampoo and so on.
3. Apply for medicine, dye, additives, grease.

