

Model: AD300S-H/P

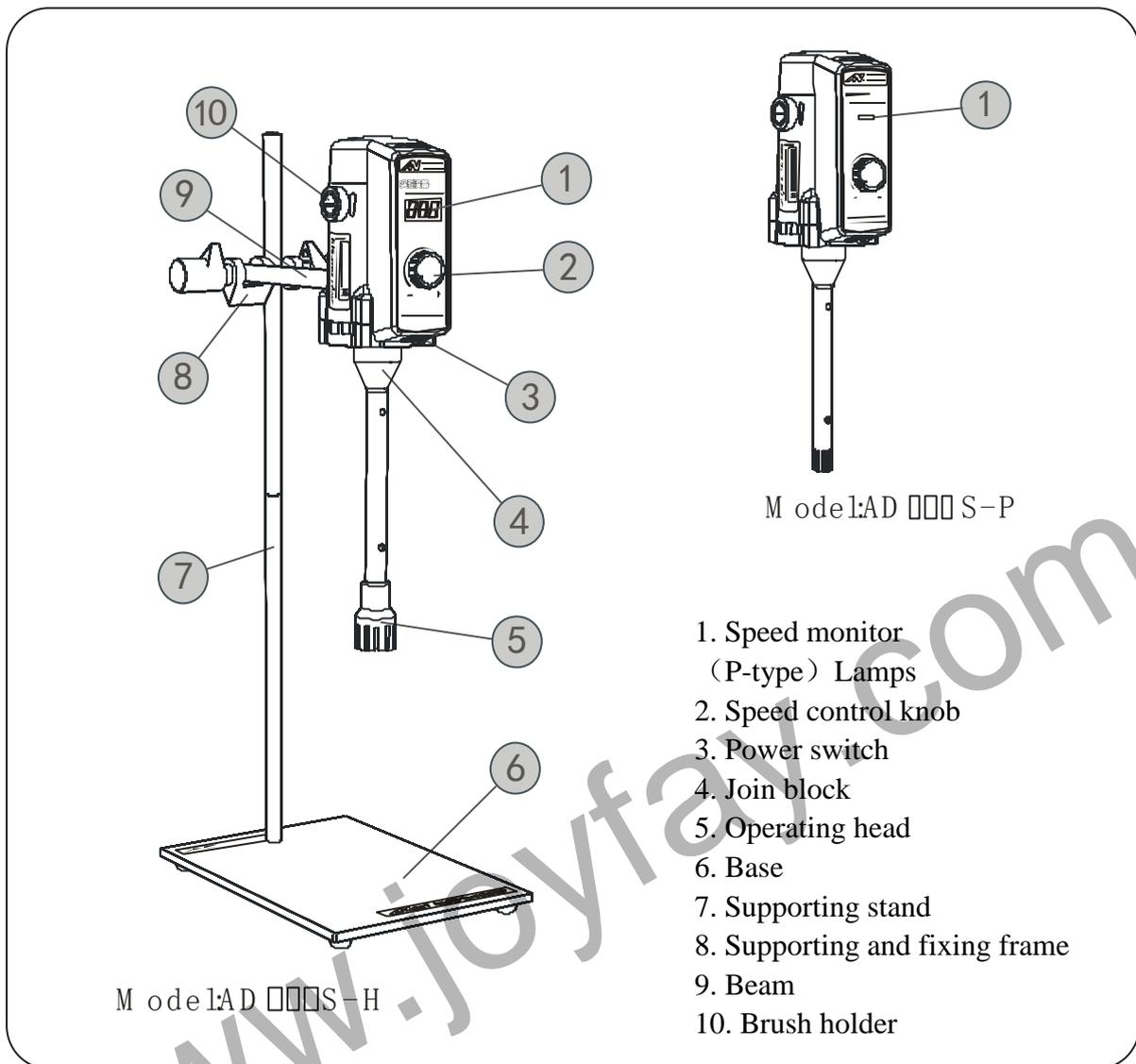
AD500S-H/P

Laboratory Homogeneous Dispersing Machine

User's Manual

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Packing list:

order	item	number	order	item	number
1	Heterogeneous host	1	5	Supporting and fixing frame	1
2	Base	1	6	Operating head	1
3	Supporting stand	2	7	Brusher(Spare)	
4	Beam	1	8	Operation manual	1
5		1			

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Thank you for using our products of electronic laboratory mixers. To make the best use of our products, please read the manual carefully before using it and keep the instruction manual for further reference.

1. Product overview

AD series homogeneous dispersing machine are powered by micro motors of compact-structured excitation type, it can be widely used in the mixture of low, moderate or high viscosity liquid in the lab or test workshop. It consists of a drive motor with high quality engineering plastic injection molding, stainless steel refining operating head and speed controller. The Speed Controller, with all cruising speed control technology and IC speed detection technology, can compensate the speed change that caused by the load change and power supply voltage fluctuations immediately and effective. Features with soft start, automatic overload protection, the reactive power compensation of whole constant etc. The "H" type of this series can display the speed intuitively with its digital display, to facilitate the acquisition of experimental data.



·Please pay special attention to the warning signal



·To avoid personal injury, please pay special attention to the warning signal

2. Technical parameters

Model:	AD300S-H/P	AD500S-H/P
Rated voltage:	230±10% VAC	
Rated frequency:	50/ 60 Hz	
Input power:	510W;	850 W;
Output power:	300W;	500 W;
Rated torque:	0.96 N·m	1.78 N·m;
Work mode:	100%	
Speed control:	Yes	
Speed range:	300~23000 rpm;	500~15000 rpm;
Speed display:	digital display×1000 rpm	
The Material of the Operating head:	Stainless steel 316 #	
Standard configuration:	12/18G;	24/36G;
Maximum line speed of the rotor:	11/15 m/s;	18/27 m/s;
Mixing capacity (H ₂ O):	10~1500 ml;	50~13000 ml;
Size of the mixer (T×B×H):	320×220×760 mm	
Permissible ambient temperature:	Lower than 40 °C	
Permissible relative humidity:	Less than 90%	

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3. Installation

3-1. Put the Base (6) on the platform, connect two supporting stand (7) by screwing them together before fixing it into the Mounting hole in the base. Set in the Supporting and fixing frame (8) on the upper end of the supporting stand, and turn the handle to fasten them.

3-2. Connect the short Beam(9) to the dispersing host electric motor through the Mounting bolt hole at the back of the motor, then insert the Beam into the Supporting and fixing frame, and turn the handle on it to fasten the motor on the supporting stand. The host motor can be adjusted on the Supporting and fixing frame freely.

3-3. When installing the operating head, follow the steps in Use and Maintenance 4-5.



·To ensure the running safety of the product, fix the key points of connections firmly and inspect it regularly.

·Before testing or operating the product, please read the Use and Maintenance carefully.

·Operate the product on the Base and NO hand operation.



·The product can't be put into use in a flammable and explosive environment.

·Ensure a good grounding for the Input power supply socket. It's strictly prohibited to connect the grounding with telephone lines, metal pipes or lightning arresters.

·There must be enough space between the end of the operating head (feed inlet) and the experimental medium container, and the liquid level of the medium must be below the overflow hole of the operating head.

·Before entering the power of this machine, please carefully check if the power switch (3) on the speed controller is turned off, speed control knob (2) is in the starting position. Avoid the Power Input of emulsified host suddenly started, personal injury caused by operator and laboratory equipment, laboratory material and other damage.

4. Use and maintenance

4-1. The machine uses single phase three wire system, so the power socket should be a triple one (220V, 10A).

4-2. A testing run is necessary before use and the operating head should NOT be installed when testing.

4-3. To avoid damage to the machine, it's strictly prohibited to start the machine when the operating head is out of the agitating medium.

4-4. Choose the right operating heads for different experimental materials.

4-5. Disassembling and assembling steps for the operating head:

4-5-1. Installation work the first (5) feed head down, put his hand control of the Ministry of, at the drive to install works (4) , the first connection on the host counterclockwise in place of the hole up.

4-5-2. Work with a hand when you remove the head of the Central, clockwise work from connections to make it loose on the head, and can be removed from the connection on the mounting holes. But not too much head in order to operate the base plate, causing damage to the inlet distortion.

4-6. After the input power supply, turn on the power switch, speed or power supply led(1) on the monitor, and then slowly rotating speed control knob in the clockwise direction, mixing host running the speed gradually enhanced(Numerical increase of speed on the monitor).Instead, run the speed decreased gradually(Numerical reduced speed on the monitor).

4-7. Operation of H - speed digital display with thousands through rate, speed in 1000 rpm. In the mixing process in stirred, due to fluctuation of input power, to participate in media properties of materials change and mixing of the fluid inertia after creating and other reasons, the running speed was changing, and numerical display of speed fluctuation ; otherwise, Speed Detection or digital display system for a failed state.

4-8. This work has been completed, the speed control knob back to the beginning, turn off the power switch, pull the plug. Efforts and keep homogeneous dispersion of individual part, for next time.

4-9. After using the product for some time or after a long stop, a maintenance inspection is needed before reusing it. To ensure electrical safety, use a Megger to measure insulation resistance.

4-10. The mixer brush is a wearing part, so a regular inspection is needed. When inspecting, switch off the electricity, pull the plug out, unscrew the brush cap (10) to pull the brush out. If the brush is less than 6 mm, replace it with a new brush of the original specification. Make sure the new brush should be able to move freely in the tube because a stuck brush may cause electric sparks or a motor failure.

4-11. If a motor failure happens, check whether the power is on, the plug is loosened, or whether the brush is in good contact. If these faults are eliminated and the motor failure remains, contact AN after-sale service. No mounting or dismantling the product for any person without operation certificate of such machine to avoid any accident.



Precautions:

- Place the product in dry and clean places. The ambient temperature should be no more than 40°C, and avoid the falling into of foreign bodies.
- When operating the product in wet conditions, you need a electric leakage protection.
- Fierce fluctuation of voltage may cause an instable speed, so use a regulated power supply device.
- Avoid using the machine in severely corrosive environment. If you have to, protective measures are needed.
- If the agitating medium is volatile and flammable, be cautious that the electric sparks may cause explosion or fires.

5. After-sale service

5-1. JF company will be responsible for warranty within six months after the purchase of this machine due to quality issues. For improper use of the user or the artificial damage, we do not assume any liability and related maintenance costs.

5-2. The product guarantee is necessary .for warranty.

5-3. The warranty does not cover accidental injury and damage caused by human factors, which include the unauthorized disassembling of the internal structure of the machine or parts.

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5-4. The repair costs borne by the users themselves if the product is beyond the warranty period.

6. Principle of Dispersion homogeneity

In the experimental device, a high-speed motor drives a operating head, which consists of a fine claw type structure of the rotor and stator. The high speed of rotation of the rotor produces high frequent, strong circumferential tangential and angular velocity, inhaling the material from the bottom of the rotor and throwing it out of the stator bore with great centrifugal force. Under the comprehensive effect like hydrodynamic shear, friction, centrifugal extrusion, flow collision, the material is well dispersed and homogenized, 1000 times more efficient than ordinary mixing.

The device can be applied to different areas like dispersing of tissue in biotechnology, sample preparation in medicine, cosmetic industry, paint industry, petro-chemical processing. It can also be applied to any liquid material experiment like liquid and liquid phase, Liquid and solid phase, Viscosity less than 0.2Pa.s, temperature below 80°C. The experimental medium can achieve a fine and delicate mixing by squeezing, strongly impacting and cracking, and liquid layers can be avoided during the operating.

Different operating heads are designed for different experimental requirements. They can be widely used achieve different purposes: Smash, homogenizing, emulsification, polymerization, suspension and agitation.

Different operating heads for you to choose from



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WARRANTY FORM

No. _____

Dear Customer:

Thank you for choosing JF product. We promise to offer you maintenance service freely if it's due to quality defects. For the sake of your benefit, we need your cooperation by doing as follows:

1. Please keep the Warranty Card properly after purchasing the unit and read the Operation Instruction carefully.
2. Please show the warranty Card and invoice (or by fax) while delivering the unit for maintenance. If you fail to show the warranty card, maintenance of the unit will be charged even if it's during the Warranty period.
3. If the unit required to be delivered for maintenance by post, the postage shall be born by you.

NO free-charge maintenance is provided for the following situations while maintenance service is still warranted:

1. The unit is damaged due to dismantlement, installation or repairing done by the customer himself or herself.
2. The unit is damaged due to improper installation, usage and maintenance by the customer violating requirements in the Operation Instruction.
3. For units expiring the Warranty period, we still provide the customer with quality service, however, a certain amount of service fee will be charged as per relevant regulations.

Registration of information



Device Name: _____ Date of purchase: _____

Device model: _____ The warranty period: _____

Sales unit name	
Unit address	
Telephone number	
Maintenance unit name	
Unit address	
Telephone number	

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