

bhidrotermal[®] WHIRLPOOL BATH PUMP USER MANUAL HIDRO-HML SERIES PUMP

IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following: 1.READ AND FOLLOW ALL INSTRUCTIONS

- **2.WARNING** To reduce the risk of injury. Do not permit children to use this product unless they are closely supervised at all times.
- **3.WARNING** Risk of Electrical Shock. Connected only to grounding type receptacle protected by a ground fault circuit interrupter (GFCI). Contact a qualified electrician if you cannot verify that the receptacle is protected by GFCI.
- **4.CAUTION** Do not bury cord. Locate cord to minimize abuse from lawnmowers, hedge trimmers, and other equipment.
- **5.CAUTION** In case the running parts will injure people, don't make the electric pump running before then pipeline have been connected.
- **6.WARNING** To reduce the risk of electrical shock, replace damaged cord immediately.
- **7.WARNING** To reduce the risk of electrical shock, do not use extension cord to connect unit electric supply; provide a properly located outlet.
- **8.CAUTION** This pump is for used for fix-installed bath tub, It is not suitable for swimming pool spa.
- 9.Do not install within an outer enclosure or beneath the skirt of a hot tub unless so marked.
- **10.**This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely.
- **11.**Young children should be supervised to ensure that they do not play with the appliance.
- **12.FOR INDOOR USE ONLY.**
- **13.SAVE THESE INSTRUCTIONS.**





This product most not be disposed together with the do mestic waste. This product has to be disposed at an authorized place for recycling of electrical and electro -nic appliances.

By collecting and recycling waste, you help save natural resources, and makesure the product is disposed in an environmental friendly and healthy way.

1.GENERAL

- These instructions are for correct installation, and optimum performance of the bath pumps, so they should be read carefully.
- These are single stage centrifugal pumps designed to operate with compact hydromassage equipment, They are equipped with a total emptying system to prevent the discharge of residual liquid in each stopping.
- V/Hz esp: See pump nameplate.
- These units are designed to operate with clean water at a maximum water temperature of 50° C.
- Storage temperature: -10° C ~ $+50^{\circ}$ C. Relative Air Humidity:95% Max.
- Built of top quality materials, they are subjected to strict hydraulic and electrical controls and are carefully verified.
- -Correct installation is ensured by following these instructions and those of the wiring diagram; otherwise, overloads may be produced in the motor. We decline responsibility for any damage caused by not following these instructions.

2.INSTALLATION

- Pumps must the level installment, Dimensions and position of the pump for supporting and fixing the pump within this space(Pig.2).
- Pump must be fixed by screw on the tub shelf, and fixed with silent block to lower the noise and libration. Sticking and enlacing is forbidden.
- The pump will be getting hot in operating, to speed up cooling, the minimum distance between the motor of the pump and the surrounding structure should notbe less then 20mm.
- The suction, pipeof the pumpshould be asshort as possible.
- The rating Labelmust be visible after installation.
- Parts containing live parts, except parts supplied with safety extra low voltage<12V, must beinaccessible to a person in the bath.
- Class I appliances must be permanently connected to fixed wiring. Part including electrical components except remote control devices must be located or fixed so that they cannot into bath.



3.PIPE ASSEMBLY

- The maximum inlet water pressure≤0.15MPa.
- The suction pipes should have a diameter equal to or larger than of the discharge pipes. It can avoid the loss of the head and improve the efficiency.
- The suction and discharge pipes should not restabove the pumpin any case.
- Seal all the connectors and unions well. Avoid any dripping on the motor, which would unfailingly damage it.
- Should be use the new hose module which supplements along with the bathtub, the old hose module cannot be reused.

4.ELECTRICAL CONNECTION

- The electrical installaction should have a multiple separation system with contacts opening at least 3mm.
- For continued protection against possible electric shock this unit is to be mounted to the base in accordance with the installation instructions.
 - The protection of the system should be based on a residual current device (RCD) with a rated tripping current not exceeding 30mA. The supply cable should comply with EMC standards.
 - 2) Single-phase motors have built-in thermal protection.
- The electric connection must be carried out by qualified staff following strictly the "EN60335-2-60" standard.
- Be sure that the earth cable connection is correctly made.
- Wires serving as equipotential bonding conductors shall have a cross sectional area between 2.5 mm² and 6 mm² and shall be equipped with the terminal suitable receptacle.

5.CONTROLS PRIOR TO INITIAL START-UP

- Verify that the pump shaft turns freely.
- Check that themains voltage and frequency are according to the name plate.
- The hydromassage assembly should be equipped with a system to prevent the pump from starting up if a minimum water level is not present.
- Check the rotating direction of the motor, which should concur with that indicated on the fan cover.
- If the motor does not start up, try to locate the problem in the table of most common faults and their possible solutions that is provided further on.
- THE PUMPSHOULD NEVER OPERATE DRY.



6.START-UP

- Start electrically the pump only when the suction and discharge pipes are connected to the corresponding inlets and outlets.
- Apply voltage to the motor and suitably adjust the jets to obtain the desired flow.

7.MAINTENANCE AND CLEAN !!

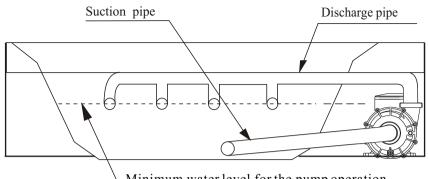
- Our pumps for hydromassage facilities do not require any special maintenance or programming. If the pump will be idle for a long period of time, it is recommended to disassemble, clean and store it in a dry, well ventilated place. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person to a hazard.

8.TROUBLE SHOOTING GUIDE

| SYMPTOM | POSSIBLE CAUSE | СНЕСК |
|------------------------------------|----------------------------|---|
| PUMP DOES NO TURN | NO POWER To PUMP | -Incoming power to the pump? -Is circuit breaker on? -Is GFCI operating properly? -Is the air switch plugged in? |
| | AIR SWITCH DISCONNECTED | -Is the air switch hose connected to the pump?-Is the air switch hose connected to the actuator button on the tub deck? |
| PUMP NOT PUMPING PROPERLY | BLOCKAGE OR LEAK | -Jets should be pointed away from the suction inlet so air is not forced into pump suction. -Is the in tub suction inlet blocked or covered? -Is there any debris in the pump housing? -Is there a leak in the piping or the pump? |
| | LOW VOLTAGE | -Is the proper voltage applied to the pump? -Is there an extension cord being used? |



9.INSTALLATION DIAGRAM



Minimum water level for the pump operation

Fig.1

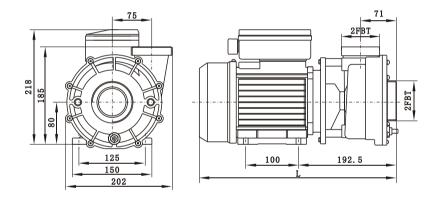
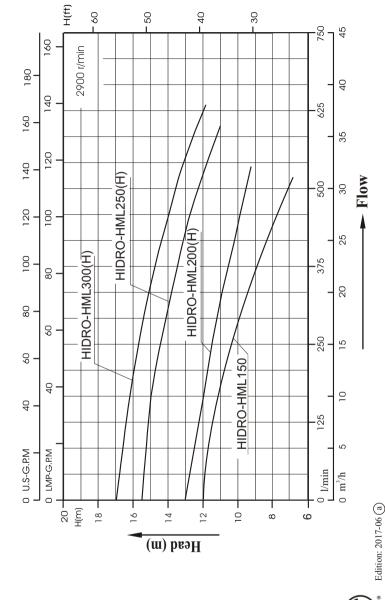


Fig.2

| Model | Power(P) | | |
|-----------------|----------|-----|-----|
| - Tiodel | kW | HP | L |
| HIDRO-HML150 | 1.10 | 1.5 | 380 |
| HIDRO-HML200(H) | 1.50 | 2.0 | 380 |
| HIDRO-HML250(H) | 1.85 | 2.5 | 380 |
| HIDRO-HML300(H) | 2.20 | 3.0 | 395 |





Performance curves

www.hidro-termal.com