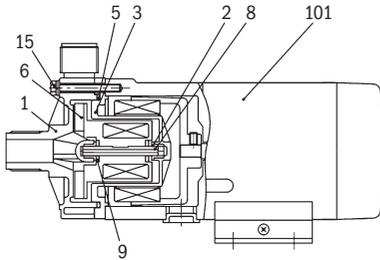


Thank you for selecting a Brewferm® Pump'in Magnetic Drive Pump. Please read through this instruction manual to ensure the optimum performance, safety and service of your pump.

Description and operation

Pump'in centrifugal magnetic drive pumps are fully sealed pumps, built to handle clear liquid transfer in heating and cooling operations with an upper limit of 90°C. Pumps are not self-priming, lack a suction lift and thus require a flooded suction. Pumps cannot be run dry.

Parts list



No	Part names	Q'ty	Materials
1	front casing	1	GFRPP
2	bearing	2	PTFE
3	rear casing	1	GFRPP
5	O-Ring	1	EPDM
6	impeller	1	GFRPP
8	spindle	1	alumina ceramic
9	thrust ring	2	alumina ceramic
15	machine screw	6	stainless steel
101	motor	1	

Safety instructions.

Turn off the power

Risk of electrical shock. Dismantling/assembling the pump unit without turning off the power may cause an electrical shock. Before engaging in any maintenance or inspection work, be sure to turn off the pump and related devices.

Terminate operation

On sensing any abnormality, stop operation immediately and inspect/solve problems.

For specified application only

The use of the pump in any application other than those clearly specified, may result in injury or damage. Use the pump in a specified condition.

No dismantlement/modification

Do not dismantle/modify the pump. We are not responsible for any accidents or damage due to modification.

Wear protective clothing

Always wear protective clothing such as safety goggles and protective gloves during pipework or dismantlement.

Pump'in magnetic drive pump

Restriction on operator

The pump should be handled by a qualified person with a full understanding of the pump.

Specified power only

Do not apply any power other than the specified one on the motor nameplate. Otherwise damage or fire may result.

Do not wet the pump

If a liquid spills over electrical parts or wires, a fire or electrical shock may result. Install the pump in a place free from liquid spillage.

Ventilation

Poisoning may result when handling a toxic or odorous liquid. Ventilate work area properly.

Countermeasure against efflux

Take protective measures against the accidental efflux caused by pump or pipe breakage.

Damaged pumps

Do not operate damaged equipment. Using a damaged pump may lead to an electric leak or shock.

Do not place the pump close to water

The pump is not dust or waterproof. Use of the pump in a humid place or a place where the pump can get wet, may result in an electrical shock or a short circuit.

Do not run pump dry

If the pump runs without a liquid, the pump is damaged by friction heat.

Do not damage the power cable

Risk of fire or electrical shock. Do not scratch, modify, pull or heat the power cable. Do not squeeze, pinch or put something heavy on the cable, the weight of the load can damage the cable.

Earthing

Risk of electrical shock. Always earth the pump.

Power cable is not replaceable

Do not use any damaged power cable in order to prevent fire or an electrical shock. The cable is not replaceable. When the cable is damaged, the whole pump unit needs to be replaced.

Limited operating site and storage

Avoid installation or storage of the pump:

- In ambient temperature s above 40°C or below 0°C
- In flammable/corrosive atmosphere
- In direct sunlight or in the rain

Disposal of the used pump

Dispose of any used or damaged pump in accordance with local regulations.

Static electricity

When low electric conductivity liquids such as ultrapure water and fluor inactive liquid are handled, static electricity may be generated in the pump and this may cause static discharge. Take countermeasures to remove static electricity.

Fasten the front casing tightly

Liquid may leak if front casing fixing screws are loose. Tighten the screws before initial operation or at intervals.

Outline

Before use, check the specification, limitation and potentially hazardous nature of the pump.

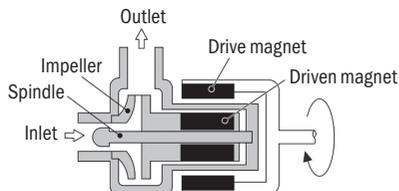
1. Unpacking and inspection

Check the information on the motor nameplate to see that the product is delivered as ordered.

Check for transit damage, deformation and loose bolts.

2. Operating principle

The Pump'in is a magnetic drive centrifugal pump. The magnetic force of the motor drives the impeller magnet and rotates the impeller in the pump chamber, where a liquid is transferred from the inlet to the outlet.



Note: performance data is based on pumping of clear water at ambient temperature.

Installation

Before installation: read through this instruction manual before use. Carry out installation work with full knowledge and understanding.

Dropping or subjecting the pump to strong impact may result in failure. Handle the pump with care.

The pump is not capable of self-priming. Always prime the pump before operation.

The motor is not dust or waterproof.
Do not wet the motor, or it may fail.

The pump does not have an ON-OFF switch. It starts immediately after you plug in the power cable.

Banned solutions

- Halogenated hydrocarbons such as trichloroethylene and carbon tetrachloride
- Ether and low-grade ester
- Slurry; never use a slurry, this wears out the pump bearings

A strong magnet is inside the pump. Do not use the pump with any liquid which contains metals such as iron and nickel.

Do not pull or knot the power cable or place something heavy on it. Damage to the power cable could lead to fire or electrical shock.

Do not use any damaged pump. Using a damaged pump may lead to electrical shock.

Install the pump close to a supply tank. Keep the liquid level in the tank higher than the pump at any time.

An electrical failure of the pump may adversely affect related devices. Purchase and install an earth leakage breaker separately.

Installation location

Select a convenient place for maintenance and inspection. Observe the allowable room temperature range of 0-40°C and the allowable maximum ambient humidity of 90% RH (Relative Humidity).

Mounting position

This pump is not capable of self-priming. Ideal for flooded suction applications. The pump should be installed 30 cm lower than the suction liquid level, or the bearing may be worn soon by entrained air.

Outlet direction

Always direct the outlet upward or entrained air cannot be expelled. Do not mount the pump vertically.

Pump fixation

Secure the pump by fitting the base on a flat and stable foundation (note: use corrosion resistant fixing screws).

Piping

Install a ball valve on a discharge line for flow rate adjustment and on a suction line for the convenience of maintenance, as close to the pump as possible. Avoid any loops in plumbing runs that could form a vapour trap.

Maintenance

Handling of the pump, maintenance and inspection should be carried out within this instruction manual. Do not handle the pump beyond the descriptions in this manual.

We are not responsible for any personal injury or property damage due to non-observance of this warning.

After a long period of operation or storage, the pump head mounting screws may be loose. Tighten the mounting screws as necessary. Do not overtighten to avoid deformation of the plastic pump head.

Always check for abnormality in vibration, noise, current value, and discharge capacity. Stop operation in case of any abnormality.

To run the pump for a long period, wear parts such as an impeller and an O-ring need to be replaced periodically.

No drain port is provided with this pump. See drainage procedure below:

1. Turn off power. Make sure no one turns on the power while working on the pump.
2. Close any discharge and suction side valves fully. Open a drain valve to empty the pump.
3. Place a container under the pump. Remove hoses from the inlet and outlet. Work carefully to prevent chemical spillage.
4. Detach and remove the unfixed pump.
5. Direct the outlet downwards to run off liquid in the container.

Limited warranty

Brewferm® Pump'in pumps are guaranteed only against defects in workmanship or materials for a period of 3 years from the original date of purchase from an authorised dealer.



This instrument is labelled in accordance with the EU Waste Electrical and Electronic Equipment Directive (WEEE).

Please do not dispose of this instrument in household waste. The user is obligated to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment, in order to ensure environmentally-compatible disposal.