



USER'S GUIDE

Magnetic Drive Pump



Manual No. 14768

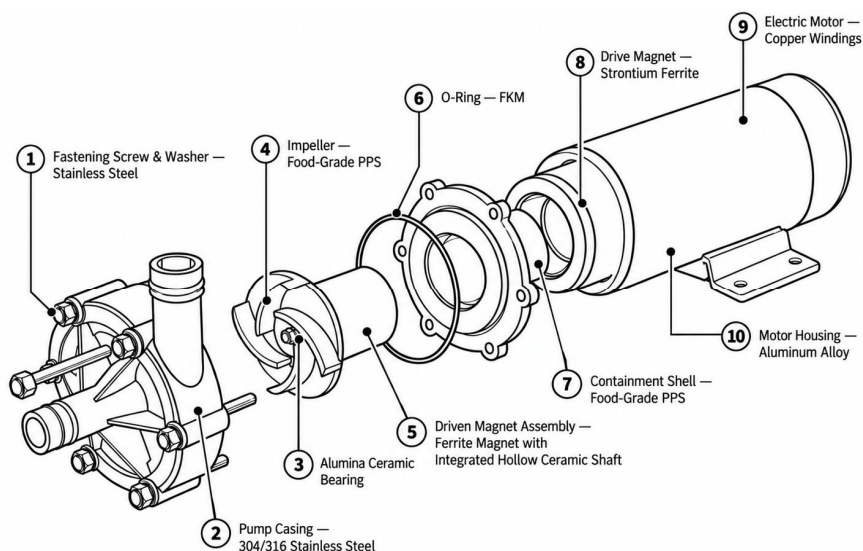
READ BEFORE INSTALLATION

WARNING - DO NOT RUN DRY

The inlet and pump chamber must be **completely filled with liquid** before starting. Remove any trapped air.

This pump is **not a self-priming pump**. Suction-lift installation is not recommended.

- This guide applies to USS-WP magnetic drive pumps. Check the product label for the model-specific voltage, connection type, flow, and head.
- Maximum liquid temperature: 248°F (120°C). Do not exceed this limit.
- This pump is not self-priming. Suction-lift installation is not recommended.



Contents

- INSTALLATION 1
 - LOCATION..... 1
 - PIPE CONNECTIONS 1
 - INSTALLATION CHECK 2
 - START-UP 4
- OPERATION & CARE 5
 - HEALTH, HEAT & ELECTRICAL SAFETY 5
 - NORMAL OPERATION..... 5
 - PROCESS-LIQUID APPLICATIONS 6
 - SHUT-DOWN..... 6
 - MAINTENANCE 6
 - PUMP HEAD CLEANING AND O-RING REPLACEMENT ... 7
- TROUBLESHOOTING 8

INSTALLATION

LOCATION

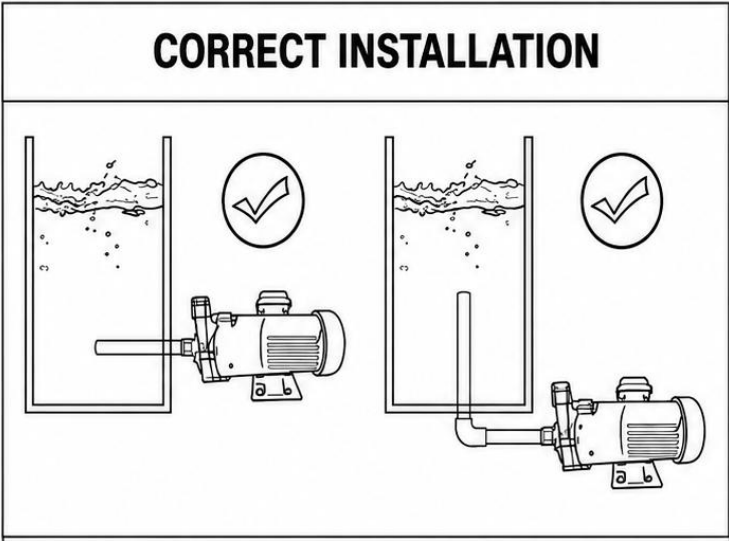
- Mount horizontally on a firm, level base. Keep the pump close to and below the liquid source.
- Place the pump below the liquid level whenever possible. This pump is not self-priming and should not be used to lift liquid.
- Keep the inlet pipe short and direct. Avoid high points where air can become trapped.

PIPE CONNECTIONS

- Support pipework independently. Do not let pipe weight or alignment load the pump ports.
- Confirm the connection type and thread standard for your model before fitting. Where threaded connections are used, apply PTFE tape or compatible thread sealant to the male thread only; keep sealant out of the flow path.
- Do not restrict the inlet line during operation. Make sure the pump chamber contains liquid before starting.
- Never run the pump dry.

INSTALLATION CHECK

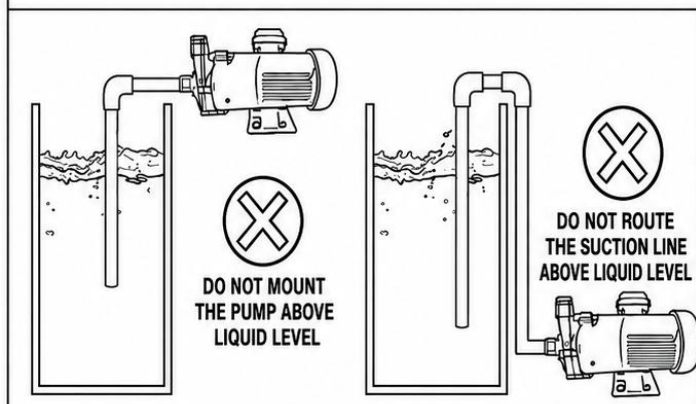
Preferred	Avoid
Pump below liquid level; inlet remains flooded.	Pump above liquid level; self-priming / suction-lift installation.
Keep the outlet path open and free of unnecessary restrictions.	Air traps, long inlet piping, or many elbows before the inlet.



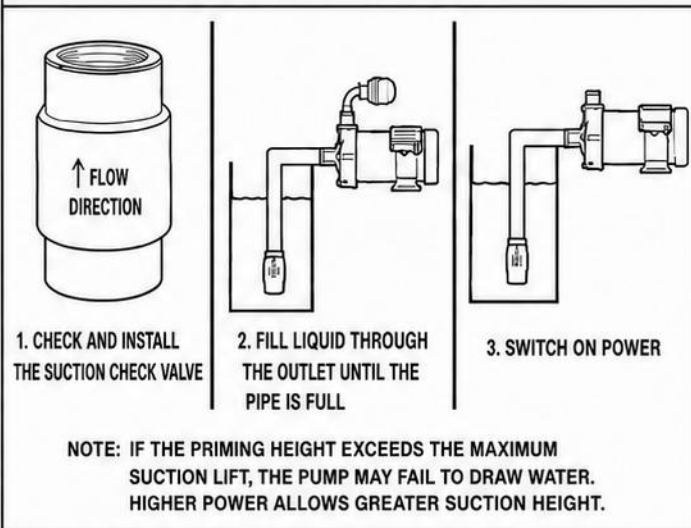
KEY INSTALLATION RULES

Keep liquid continuously available at the inlet. Air leaks, an empty inlet line, excessive lift, and raised inlet piping can prevent priming and cause dry running.

IMPROPER INSTALLATION



SELF-PRIMING INSTALLATION STEPS (NOT RECOMMENDED)



START-UP

1. Verify the voltage, grounding, mounting, and pipe connections.
2. Fill the pump chamber and inlet line with compatible liquid.
Remove trapped air.
3. Confirm a continuous liquid supply and a clear outlet path.
4. Start the pump and check for steady flow, leaks, unusual noise, vibration, or rapid heating.
5. Adjust flow if needed. Do not operate the pump with the outlet blocked.

STOP IMMEDIATELY IF

The pump loses liquid, the inlet line draws air, abnormal vibration/noise occurs, the motor overheats, or magnet coupling is suspected to have slipped.

DO NOT USE THIS PUMP WITH:

- Highly viscous liquids, slurries, or liquids containing suspended solids, including grain, hop debris, fruit pulp, sludge, abrasive particles, or other debris.
- Liquids containing ferrous metal fines.
- Any liquid that has not been confirmed chemically compatible with the pump's wetted materials.

OPERATION & CARE

HEALTH, HEAT & ELECTRICAL SAFETY

- Magnetic drive parts may affect certain implants or medical conditions. Before handling or opening the pump, seek medical advice if you have a pacemaker, implanted defibrillator, electronic implant, metal heart valve, sickle-cell disease, or another condition affected by magnets.
- Keep clear airflow around the motor. If wiring, grounding, or electrical safety is uncertain, stop and have a qualified electrician inspect the installation before use or service.
- The motor and pump may feel warm during normal S1 continuous-duty operation. For maintenance, disconnect the power and allow the unit to cool before touching it.

NORMAL OPERATION

- Ensure the pump remains supplied with liquid. Monitor flow, noise, vibration, and temperature.
- Do not restrict the inlet line during operation.
- Do not operate the pump with the outlet blocked.
- Do not pump liquids containing suspended solids, ferrous metal fines, slurries, or unsuitable high-viscosity liquids.
- Switch power off immediately if the pump runs dry, loses flow, or produces unusual noise or vibration.

PROCESS-LIQUID APPLICATIONS

- For juice, beer, wort, or other process-liquid applications, use only liquid that is free of suspended solids and does not exceed 248°F (120°C).
- To prevent fruit pulp, grain, hop debris, sediment, or other solids from entering the pump, install a suitable external filter upstream of the pump inlet.
- Inspect and clean the external filter as needed. Do not allow the filter to restrict inlet flow.

SHUT-DOWN

1. Switch off power.
2. Allow the pump to come to a complete stop.
3. Before maintenance, disconnect power, allow the unit to cool, and drain liquid as required.

MAINTENANCE

- Disconnect power and allow the pump to cool before cleaning or inspection.
- Check for leaks, loose mounting, and blocked motor ventilation openings.
- Keep metal chips away from the pump.

- Do not disassemble the pump except as described in the Pump Head Cleaning and O-Ring Replacement section or under service guidance.
- Do not spray or immerse the motor in water.

PUMP HEAD CLEANING AND O-RING REPLACEMENT

- The pump head may be removed for inspection, cleaning, and O-ring replacement. Do not disassemble the motor, wiring, or drive-magnet assembly.
- Before service, disconnect power, allow the pump to cool, release pressure, and drain all liquid from the pump.
- Clean the pump chamber, impeller, and surrounding flow passages. Remove any residue or debris. Avoid sharp metal tools that could damage sealing surfaces or the O-ring groove.
- Install the specified O-ring fully in its groove without twisting, pinching, nicking, or displacement.
- Reinstall internal components in their original orientation. Fit the pump head straight and tighten fasteners evenly.
- Before restarting, fill the pump chamber and inlet line with compatible liquid and check the pump head seam for leaks.

TROUBLESHOOTING

Symptom	Check / Action
No or low flow	Stop the pump. Check that the pump is filled with liquid, the liquid level is adequate, the inlet is not blocked, and the outlet path is clear. If flow does not recover, contact service.
Unusual Noise / vibration	Stop the pump immediately. Check for low liquid level, air entering the inlet line, or loose external pipe supports. Do not disassemble the pump while powered or pressurized.
Leakage	Switch off power and allow pressure to release. Check for leakage at external connections. If leakage comes from the pump body or continues, contact service.
Unusual overheating	The motor may feel warm during normal operation. Stop the pump if there is rapid heating, a burnt smell, smoke, abnormal noise, or loss of flow. Do not restart until the cause is corrected.
Pump runs but flow suddenly stops	Stop the pump. Check the liquid supply, external filter, and accessible external piping for blockage. Contact service if the problem remains.

Contact

Feel free to visit our website: www.ussolid.com

You can email us at service@ussolid.com