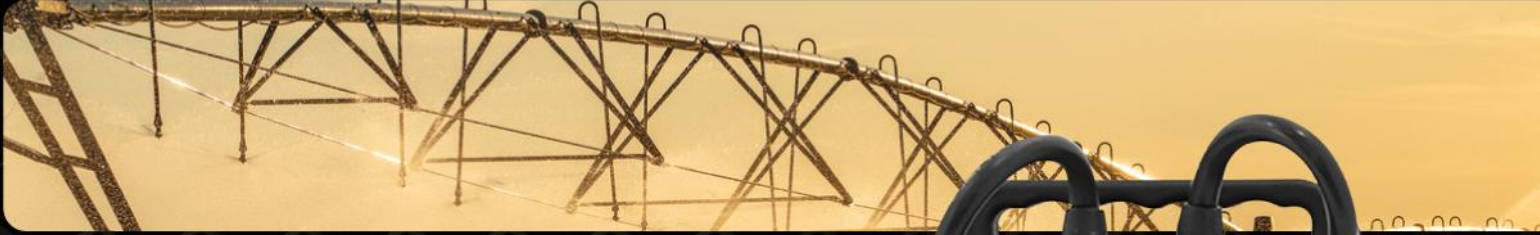


TF TUBMAN



MULTISTAGE SUBMERSIBLE PUMP

TM-S

V1.0 05/25/2026

INSTALLATION MANUAL

Summary

INSTALLATION MANUAL

Thank you for choosing our TUBMAN multistage submersible pumps.

With the help of this instruction manual, you will be able to correctly install and operate this product; therefore, we recommend following the instructions included here. Keep it in a safe place for future reference.

The information contained in this document is subject to change without prior notice.

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1. SAFETY INSTRUCTIONS

The following instructions are based on international safety practices applied to submersible pumps for clean water. Compliance is essential to avoid risks to personnel, prevent equipment damage, and ensure reliable operation. Work on pumps must be performed only by trained personnel familiar with electrical, mechanical, and thermal hazards.

The pump must be installed, operated, and maintained in accordance with local regulations, as well as the manufacturer's recommendations.

1.1. Hazards that can cause death or serious injury immediately.



DANGER

- **Electric shock hazard:** Always disconnect the pump from the power source before handling, inspecting, removing, or performing any service activity. Working on energized equipment can cause electric shock, serious burns, or death.
- **Handling energized electrical components:** Never handle the power cord, plug, level switch, or any electrical connection with wet hands or while in contact with water. Contact with energized components can cause fatal electric shock.
- **Damaged power cord:** Do not operate the pump if the power cord, plug, connector, or level switch shows cuts, punctures, abrasion, crushing, or any visible damage. A damaged cord can cause electric shock, serious burns, or death.
- **Suction and discharge openings:** Stay clear of the suction and discharge openings. Do not insert fingers, hands, tools, or objects into the pump while there is a possibility of start-up or while the equipment is connected to the power supply.

1.2. Hazards that could cause serious injury.



WARNING

- **Installation by qualified personnel:** Installation, connection, inspection, and servicing of the pump must be performed only by qualified personnel. Incorrect intervention can cause serious injury, electric shock, fire, or equipment failure.
- **Code compliance:** Installation, wiring, splices, electrical protection, and grounding must comply with the National Electrical Code, state codes, local codes, and the requirements of the authority having jurisdiction. Requirements may vary depending on location, application, and system use.
- **Use in areas with human contact:** This pump is not suitable for use in swimming pools, spas, tubs, accessible fountains, or water installations where there is a possibility of human contact with the pumped liquid, unless the product is specifically approved for that application.
- **Repair of electrical components:** If the power cord or any electrical component is damaged, it must be replaced by the manufacturer, an authorized service center, or qualified technical personnel. Do not make makeshift splices or unauthorized repairs.

1.3. Hazards that could cause minor or moderate injury.



CAUTION

- **Operation outside recommended conditions:** Do not exceed the operating limits specified by the manufacturer. Operating the pump outside permitted conditions can cause overheating, premature failure, or unsafe operating conditions.
- **Unexpected start-up:** Before handling the pump, verify that the equipment is disconnected from the power supply and that there is no possibility of automatic start-up via the level switch, external control, or an automation system.

1.4. Important information that prevents equipment failures or damage, without risk to the user's safety.



NOTICE

- **Nameplate review:** Before connecting or operating the pump, verify that the electrical supply and operating conditions match what is indicated on the equipment nameplate.
- **Power cord protection:** Keep the power cord protected against cuts, punctures, abrasion, crushing, mechanical strain, sharp edges, or any condition that could damage it. Inspect it frequently.
- **Manual retention:** Keep this manual in a safe, accessible place for future reference during installation, operation, inspection, maintenance, or servicing of the equipment.

2. INTENDED USE AND PROHIBITIONS

2.1. Intended Use

1. **Use in clean water:** These pumps are designed to pump potable water or clear water without abrasive solids.
2. **Installation in cisterns or rainwater storage tanks:** Ideal for residential cisterns, traditional wells, and rainwater harvesting systems.
3. **Garden or small orchard irrigation:** Due to their low power consumption and moderate pressure, they are useful in sprinkler or drip irrigation systems.
4. **Filling overhead water tanks and household distribution:** Commonly used to lift water to an overhead storage tank from a cistern.
5. **Basement and pit drainage or dewatering:** Some models are used to remove water accumulated due to rain or leaks.
6. **Automatic operation with a float switch:** Many models include level switches (floats) for autonomous operation.

2.2. Prohibitions

1. **Do not use in water with sand, mud, or abrasive solids:** This wears the impeller and can jam the motor.
2. **Do not operate out of the water:** Although compact, they can also be damaged if run dry (they can burn out in minutes).

3. **Do not use with chemical or corrosive liquids:** Unless specified by the manufacturer, contact with chemicals damages seals, the housing, and the motor.
4. **Avoid frequent starts and stops without electrical protection:** Continuous use without a motor overload protector or thermal protection shortens service life.
5. **Do not use to pump very hot water:** Most models cannot handle more than 95 – 104 °F (35 – 40 °C). Excess temperature can deform plastic parts or damage the motor.
6. **Do not fully submerge if not of a sealed type:** Some models must only be partially submerged (see specifications).
7. **Do not force flow or pressure beyond what is specified:** Installing it in very long or undersized piping can cause it to operate under strain and overheat.

3. HANDLING

This chapter provides recommendations for receiving, handling, transportation and storage of the pump, in order to prevent damage to the equipment before installation.

Improper handling can cause premature failures, mechanical damage, or unsafe operating conditions.

3.1. Receiving Inspection

Upon receiving the equipment, perform a complete visual inspection before installation or storage:

- **Transportation damage inspection:** Verify that the pump, power cord, and accessories show no dents, deformation, cracks, or visible damage.
- **Component check:** Make sure the equipment is complete, including all accessories supplied by the manufacturer.
- **Equipment data verification:** Confirm that the model, voltage, and characteristics match what was ordered and the installation requirements.



CAUTION

- **Damaged or incomplete equipment:** Do not install or operate the pump if it shows visible damage or if components are missing, and report any abnormality immediately to the supplier or authorized distributor.

3.2. Unpacking and Lifting

Proper handling of the equipment during unpacking and positioning is essential to prevent mechanical or electrical damage:

- **Careful unpacking:** Remove the packaging without using tools that could damage the pump or the power cord.
- **Safe handling:** Place the pump on a firm, stable surface while preparing it for installation.



CAUTION

- **Lifting and handling method:** Do not lift or transport the pump using the power cord or the level switch cable (if applicable).
Support the equipment from the base, firm structural points, or the handle (if applicable), maintaining a stable stance and avoiding sudden movements.
Avoid impacts, drops, or dragging the equipment during handling.

3.3. Storage

If the pump will not be installed immediately, it must be stored under suitable conditions to preserve its integrity and performance:

- **Dry, protected environment:** Store the pump in a clean, dry place protected from the elements.
- **Protection against moisture and contaminants:** Avoid exposure to excessive humidity, dust, corrosive agents, or chemical vapors.
- **Storage position:** Keep the pump in a stable vertical position to prevent deformation or damage.
- **Power cord protection:** Make sure the power cord is not bent, under tension, or in contact with sharp surfaces.



NOTICE

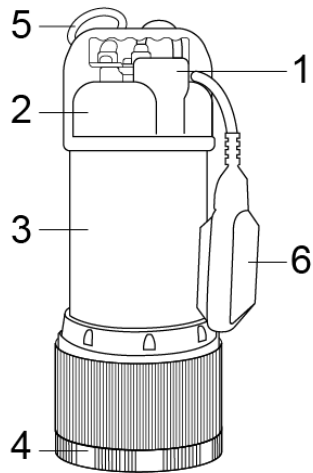
- **Improper storage conditions:** Do not store the pump outdoors without protection.
Do not expose the equipment to extreme temperatures or corrosive environments.
Improper storage may cause component deterioration and affect equipment operation.

4. PUMP OVERVIEW

The clean-water submersible pump is designed to operate fully submerged, allowing efficient pumping of clean water from reservoirs, cisterns, tanks, shallow wells, or other clean-water sources to distribution, storage, or pressurization systems. Its construction integrates the hydraulic assembly, the electric motor, and protective components into a compact unit, facilitating installation in residential, light commercial, agricultural, or general service applications.

This type of pump must be used only for handling clean water or liquids permitted by the manufacturer. Its operation depends on proper hydraulic and electrical installation, as well as compliance with the conditions indicated on the nameplate and in the corresponding manual. To ensure reliable operation, the equipment must be protected against solids, debris, dry running, damage to the power cord, and any condition that may affect performance or service life.

4.1. Pump Components



Components
1. Outlet with bronze insert.
2. Sturdy top cover with double-sealed connectors.
3. Motor pump housing.
4. Suction.
5. Power cord.
6. Level switch (float switch).

5. INSTALLATION



WARNING

- Pump installation must be performed by qualified personnel.
- Installation must be carried out in accordance with current engineering standards to ensure warranty coverage and compliance with local regulations.

5.1. Hydraulic Installation

Follow these steps to perform the hydraulic installation of the equipment:

- The pump must not be placed on the bottom of the water reservoir, to prevent solid particles from entering the pump housing.

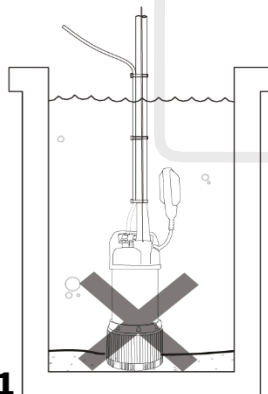


Fig.1

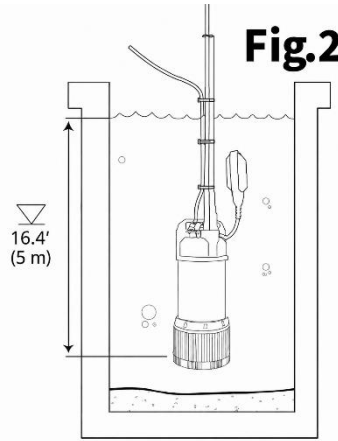


NOTE

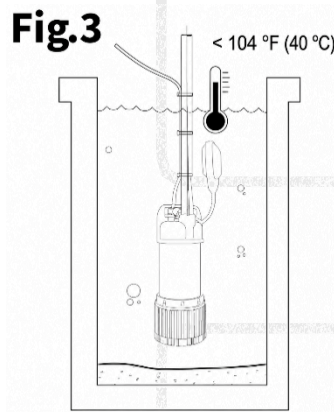
The equipment requires an area of at least 23.6 x 23.6" (60 cm x 60 cm).

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- Ensure that the amount of water in the reservoir is greater than the amount pumped by the pump, so it does not run dry.
- Confirm that the pump does not exceed the maximum submergence depth of 16.4' (5 m); otherwise, proper equipment operation is not guaranteed.



- The temperature of the water to be pumped must not exceed 104 °F (40 °C).



5.1.1. Piping

The pumps feature a 1" NPT female connection; however, it is recommended to use piping with a larger diameter to reduce friction losses over long distances and obtain the highest possible hydraulic performance.

It is recommended to install a check valve at the pump discharge; this will prevent the piping from draining every time the pump stops.



WARNING

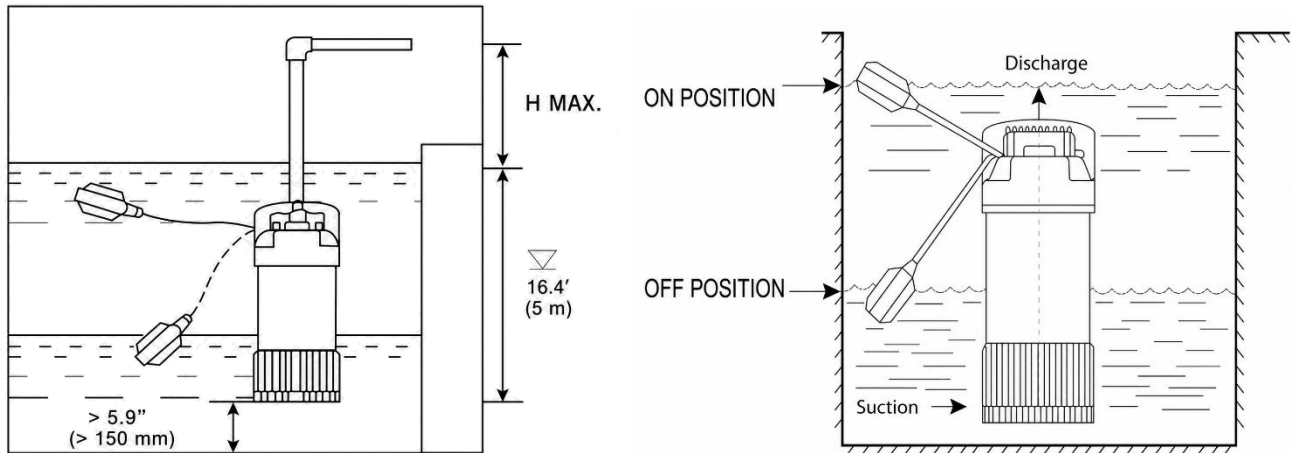
The pump must not be used to pump corrosive, flammable, or explosive substances (such as gasoline, petroleum, nitro thinner), grease, oil, brine, or toilet wastewater, as well as low-mobility sludge wastewater. The liquid temperature must not exceed 104 °F (40°C).



CAUTION

If the pump is installed with a plastic hose instead of rigid piping, it is recommended to verify that the hose withstands the pump's maximum pressure and that there are no bends along the run that could affect the delivered flow.

Installation Diagram



5.2. Electrical Installation

Follow these steps to perform the electrical installation of the equipment:

5.2.1. Electrical Connections

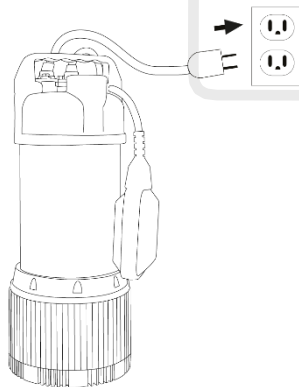
The pump includes 32.8' (10 m) of submersible cable with a power plug for connection to the electrical supply.



CAUTION

For connection to the supply, a 127 V~ grounded receptacle must be provided.

The pump motor has built-in thermal protection.



6. PRE-START CHECKLIST

Before energizing and starting the pump, verify each of the following items. This checklist must be completed after installation and before operating the equipment for the first time or after any major maintenance.

- **Nameplate verification:** Confirm that the model, voltage, frequency, phase, and other electrical data match the available supply and the installation conditions.
- **General condition of the equipment:** Check that the pump has no impacts, deformation, loose parts, visible damage, or signs of improper handling prior to installation or operation.
- **Power cord integrity:** Verify that the cord, plug, connector, and level switch, when applicable, show no cuts, abrasion, punctures, crushing, or visible damage.
- **Grounding:** Confirm that the electrical system has proper grounding, in accordance with applicable electrical codes and the requirements of the authority having jurisdiction.
- **Electrical protection:** Verify that the supply circuit includes the protective devices required for the application, including overcurrent protection and ground-fault protection where applicable.
- **Available water level:** Make sure the reservoir, cistern, tank, or water source has sufficient level to allow pump operation without risk of dry running.
- **Condition of the liquid to be pumped:** Confirm that the liquid is clean water or a fluid permitted by the manufacturer, free of debris, solids, fibers, grease, oils, aggressive chemicals, or materials that could clog or damage the equipment.
- **Pump position:** Verify that the pump is placed in a stable position, properly submerged, and not resting directly on sediment, mud, sand, gravel, or unstable surfaces.
- **Discharge line:** Check that the discharge pipe or hose is properly connected, with no leaks, kinks, obstructions, or restrictions that could affect water flow.
- **System valves:** Verify that the valves required for operation are open and that no condition exists that would block discharge during startup.
- **Level switch:** When the equipment includes a float or level switch, confirm that it can move freely and is not obstructed by walls, piping, cables, or other items inside the reservoir.
- **Securing and handling the equipment:** Confirm that the pump has been lowered, lifted, or positioned only using the handle, rope, or proper support, and not by the power cord or level switch.
- **Installation area:** Check that the area is free of objects, tools, debris, or conditions that could interfere with safe equipment operation.
- **Final conditions before startup:** Before energizing the pump, confirm that all the above checks have been completed and that there are no visible conditions of risk, damage, or incorrect installation.

7. START-UP

- Open all shutoff valves in the discharge line.
- Connect the power plug; wait a few seconds for the water to fill the piping and begin to flow out.
- Check that the amperage drawn by the pump matches the value indicated on the nameplate.

8. MAINTENANCE

TM-S series pumps are essentially free of special maintenance. If solids enter the pump housing, the suction base can be unscrewed to clean the impeller area.

For safety reasons, if the impellers are damaged or any repair is required, contact your authorized distributor.

9. TROUBLESHOOTING

Fault	Cause	Solution
Pump does not start	• Power supply failure	• Verify the power supply network.
	• Shutdown by level float switch	• Reservoir likely ran out of water; wait for the level to recover.
	• Damaged power cable	• Check for punctures or cuts in the power cable; if found, send the pump for repair.
Pump runs but provides insufficient water flow	• Low water level in the well	• Ensure the pump is fully submerged in water.
	• Leaking or damaged discharge piping	• Repair piping if damaged or fix existing leaks.
	• Check valve installed backwards	• Reverse the check valve flow direction.
Pump stops automatically	• Incorrect voltage	• Verify that the power supply voltage matches the pump nameplate.
	• Insufficient well flow	• Throttle the discharge valve at the piping outlet.
	• Shutdown by level float switch	• Reservoir likely ran out of water; wait for the level to recover.
Flow rate does not match the pump curve	• Total Dynamic Head (TDH) is higher than expected	• Verify static head plus friction losses and make modifications if necessary.
	• Insufficient well flow	• Throttle the discharge valve at the piping outlet.
	• Clogged pump suction	• Clean the pump suction strainer.
	• Worn hydraulic parts	• Contact technical service for pump repair.
	• Leaking or damaged discharge piping	• Repair piping if damaged or fix existing leaks.