Speroni ST-0519

Speroni ST-0519 0.55KW Submersible Borehole Pump Instruction Manual

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the Speroni ST-0519 0.55KW Submersible Borehole Pump. Please read these instructions thoroughly before attempting to install or operate the pump.

The Speroni ST-0519 0.55KW Submersible Borehole Pump is designed for a wide range of pumping duties in agricultural and domestic applications. Its construction features a 304 Stainless steel pump body and a Hex 304 Stainless steel shaft, ensuring durability. The pump utilizes floating type impellers manufactured from Noryl, which require less starting torque and offer increased resistance to sand and abrasive materials.



Image 1.1: Speroni ST-0519 0.55KW Submersible Borehole Pump. This image shows the overall design of the submersible borehole pump, highlighting its stainless steel construction.

2. Safety Information

Always observe the following safety precautions to prevent personal injury and damage to the equipment.

- **Electrical Safety:** Ensure the power supply matches the pump's specifications. All electrical connections must be performed by a qualified electrician and comply with local regulations. Disconnect power before any installation, maintenance, or repair work.
- **Installation:** Do not operate the pump dry. Ensure the pump is fully submerged in water during operation. Secure the pump properly to prevent it from falling or shifting in the borehole.
- **Handling:** Use appropriate lifting equipment when handling the pump due to its weight. Avoid kinking or damaging the power cable.
- **Water Quality:** This pump is designed for clean water applications. Pumping highly abrasive or corrosive liquids may damage the pump and void the warranty.

- **Children and Unauthorized Personnel:** Keep children and unauthorized personnel away from the pump's operating area.

3. Product Features

- Constructed from high-grade stainless steel for durability.
- Equipped with a highly durable water-cooled rewindable motor.
- Designed to cover a wide range of pumping duties for agricultural and domestic applications.
- Features high-quality floating impellers made from Noryl.
- Offers resistance to sand and abrasive materials, enhancing longevity.

4. Setup and Installation

Proper installation is crucial for the pump's performance and longevity. Consult a qualified professional if you are unsure about any step.

1. **Borehole Preparation:** Ensure the borehole is clear of debris and has an adequate diameter (minimum 100 mm) for the pump. The borehole should be deep enough to allow for proper submergence of the pump and sufficient water level above the pump intake.
2. **Attach Discharge Pipe:** Connect a suitable discharge pipe to the pump's outlet. Ensure all connections are watertight using appropriate sealing materials.
3. **Secure Safety Rope/Cable:** Attach a strong, non-corrosive safety rope or cable to the designated eyelet on the pump. This rope will be used to lower and retrieve the pump and should be capable of supporting the pump's weight plus the weight of the water in the discharge pipe.
4. **Electrical Connections:** Connect the pump's power cable to the control box (if applicable) and then to the main power supply. Ensure all electrical connections are properly insulated and protected from water ingress. Follow all local electrical codes.
5. **Lowering the Pump:** Carefully lower the pump into the borehole using the safety rope/cable. Ensure the pump hangs freely and does not touch the sides of the borehole. The pump must be fully submerged, with at least 1 meter of water above the pump intake, and positioned above the bottom of the borehole to avoid drawing in sediment.
6. **Check Valve Installation:** Install a check valve in the discharge line to prevent backflow when the pump stops.
7. **Pressure Switch/Control System:** Install and configure any necessary pressure switches or control systems according to their respective manuals to automate pump operation.

5. Operation

Once installed, operating the Speroni ST-0519 pump is straightforward:

1. **Initial Start-up:** After ensuring all connections are secure and the pump is properly submerged, switch on the power supply. The pump should start immediately.
2. **Monitoring:** During initial operation, monitor the pump for any unusual noises or vibrations. Check the water flow and pressure.
3. **Continuous Operation:** The pump is designed for continuous operation within its specified limits. Avoid running the pump dry, as this can cause severe damage to the motor and impellers.
4. **Shut-down:** To stop the pump, switch off the power supply. If the pump is part of an automated system, it will shut down based on the pressure switch or control settings.

6. Maintenance

The Speroni ST-0519 pump is designed for minimal maintenance. However, regular checks can extend its lifespan.

- **Regular Checks:** Periodically check the water level in the borehole to ensure the pump remains fully submerged.
- **Electrical Inspection:** Annually inspect the power cable for any signs of wear, damage, or insulation breakdown. Ensure all electrical connections remain tight and free from corrosion.
- **Pump Retrieval (if necessary):** If the pump needs to be retrieved for inspection or repair, use the safety rope/cable. Ensure the power is disconnected before retrieval.
- **Cleaning:** If the pump is operating in water with higher sediment content, occasional cleaning of the pump intake screen may be necessary to prevent clogging.

7. Troubleshooting

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution
Pump does not start	No power supply; Blown fuse/tripped breaker; Motor overload; Faulty wiring.	Check power supply; Reset breaker/replace fuse; Allow motor to cool and reset overload; Inspect wiring.
Pump runs but no water or low flow	Pump not submerged; Clogged intake screen; Air lock in pipe; Damaged impellers; Low water level in borehole.	Ensure pump is submerged; Clean intake screen; Bleed air from system; Inspect/replace impellers; Check borehole water level.
Pump cycles on and off frequently	Faulty pressure switch; Leaking check valve; Waterlogged pressure tank (if applicable); Low water level in borehole.	Inspect/replace pressure switch; Replace check valve; Recharge pressure tank; Check borehole water level.
Excessive noise or vibration	Pump not securely suspended; Bearing wear; Impeller damage; Air in system.	Secure pump; Contact service for bearing/impeller inspection; Bleed air from system.

If the problem persists after attempting these solutions, contact a qualified service technician.

8. Specifications

Specification	Value
Brand	Speroni
Model Number	ST-0519
Power	0.55 KW
Material	Stainless Steel
Power Source	Corded Electric
Minimum Borehole Size	100 mm

Specification	Value
Impeller Type	Floating (Noryl)
Shaft Material	Hex 304 Stainless Steel
Included Components	1 x Speroni ST-0519 0.55KW Submersible Borehole Pump

9. Warranty Information

This Speroni pump is covered by a manufacturer's warranty against defects in materials and workmanship under normal use and service. The specific terms and duration of the warranty may vary by region and retailer. Please retain your proof of purchase for warranty claims. For detailed warranty information, refer to the documentation provided at the time of purchase or contact your authorized Speroni dealer.

The warranty does not cover damage resulting from improper installation, misuse, neglect, unauthorized modifications, or operation outside the specified parameters.

10. Customer Support

For technical assistance, spare parts, or service inquiries, please contact your local Speroni dealer or the point of purchase. When contacting support, please have your pump's model number (ST-0519) and serial number (if available) ready.

You may also visit the official Speroni website for additional resources and contact information.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question