

3" SDM Borehole Pump Range

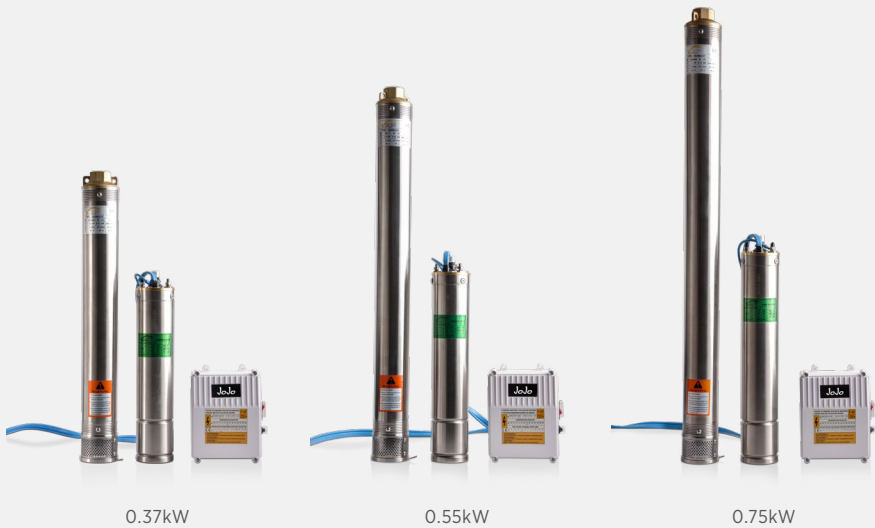
Instructions for use

May 2024

Features & Benefits

- ✓ 1-year Quality Warranty
- ✓ Supplied in kit-form
- ✓ Pre-assembled and ready-for-installation
- ✓ Made from premium construction materials ensuring durability and reliability
- ✓ Curve tolerance according to ISO 9906
- ✓ Waterproof cable joint
- ✓ Water hammer control
- ✓ Motor upthrust protection
- ✓ Overload protection

RANGE & APPLICATIONS



Tanks



Boreholes



Rivers



Dams



Wells

1-year Quality Warranty

JoJo pumps purchased from an approved JoJo retail outlet and/or distributor carry a 1-year warranty from the date of purchase. In order to maintain your warranty, always ensure you install, operate and maintain the pump as per the instructions provided in this manual.

Detailed T's and C's, as well as return policies and procedures are in the back of this manual.

1
YEAR
WARRANTY

Important information

- All maintenance should be carried out with the power supply disconnected.
- The pump is designed for clean water use only, i.e. water containing no solid particles.
Note: pumping muddy water or water containing suspended solids will severely reduce the lifespan of the unit and falls outside of the factory warranty.
- The pump is not designed for corrosive water with a volume ratio of sand content exceeding 0.25%.
- The pump is suitable for installations in tanks, boreholes, wells, rivers and dams with a minimum diameter of 4 inches.

Performance tables

| Pump specifications | 0.37kW | 0.55kW | 0.75kW |
|--|----------------------|----------------------|----------------------|
| Pump model | 3SDm2/15 | 3SDm2/21 | 3SDm2/27 |
| Single-phase | 220-240V/50Hz | 220-240V/50Hz | 220-240V/50Hz |
| Curve tolerance | According to ISO9906 | According to ISO9906 | According to ISO9906 |
| Equipped with start control box | Yes | Yes | Yes |
| Discharge (inches) | 1" | 1" | 1" |
| Fitted cable size | 1.0mm ² | 1.0mm ² | 1.5mm ² |
| Fitted cable length (according to best efficiency range) | 60 | 80 | 100 |

| Motor specifications | 0.37kW | 0.55kW | 0.75kW |
|----------------------|---------------|---------------|---------------|
| Single-phase | 220-240V/50Hz | 220-240V/50Hz | 220-240V/50Hz |
| Motor speed | 2850 rpm | 2850 rpm | 2850 rpm |
| Capacitor | 20 uF | 25 uF | 35 uF |
| Running current | 4.2A | 4.5A | 6A |

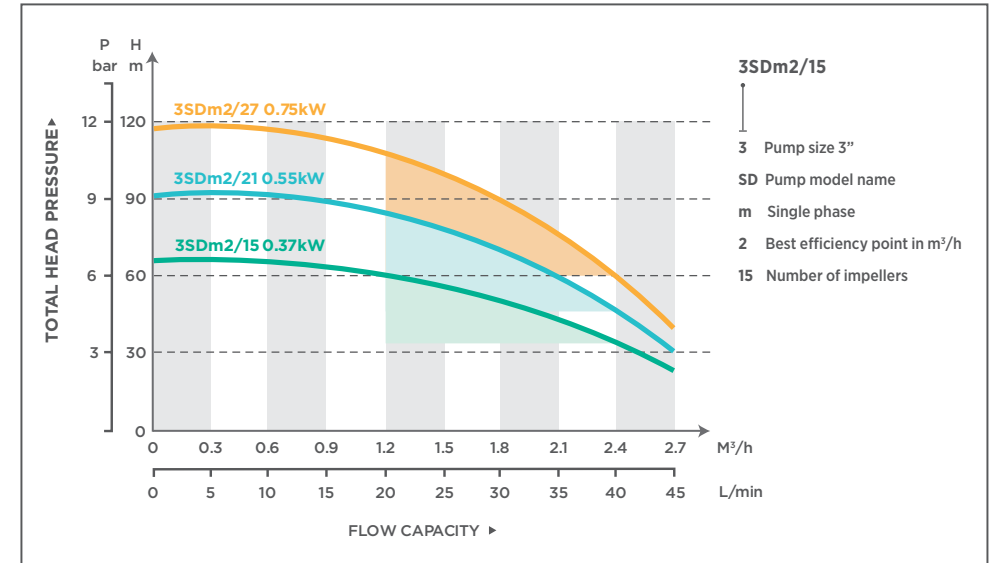
| Operating conditions | 0.37kW | 0.55kW | 0.75kW |
|------------------------|-----------|-----------|-----------|
| Max. head | 65 m | 91 m | 117 m |
| Max. flow | 45 lt/min | 45 lt/min | 45 lt/min |
| Max. fluid temperature | 35 °C | 35 °C | 35 °C |
| Max. sand content | 0.25% | 0.25% | 0.25% |
| Min. well diameter | 4 " | 4 " | 4 " |
| PH capability | 6.5 to 8 | 6.5 to 8 | 6.5 to 8 |

Best efficiency ranges

| Flow range | Lt/min |
|------------|----------|
| 0.37kW | 20 to 40 |
| 0.55kW | 20 to 40 |
| 0.75kW | 20 to 40 |

| Head range | Meter |
|------------|-----------|
| 0.37kW | 33 to 60 |
| 0.55kW | 46 to 84 |
| 0.75kW | 59 to 107 |

Performance curves

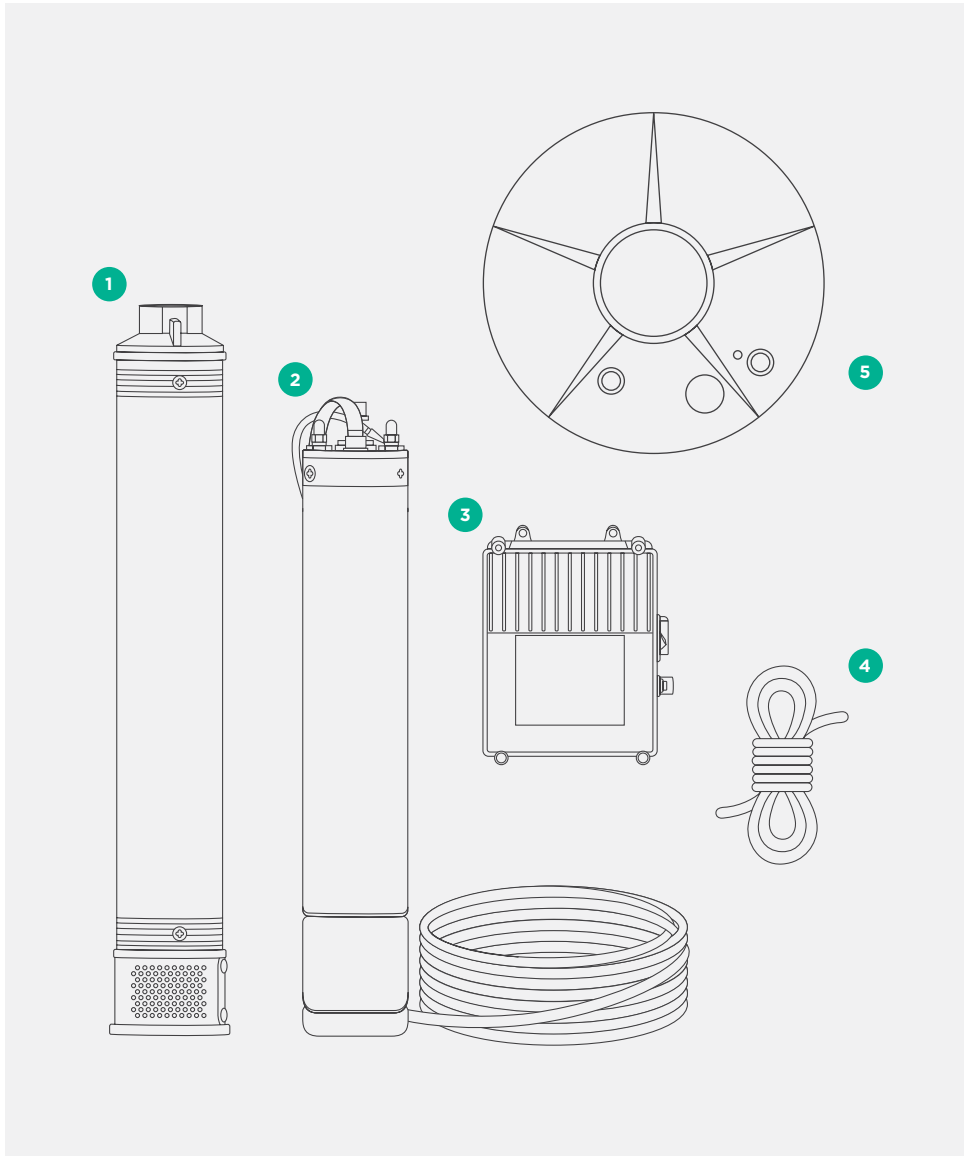


Additional details

| Dimensions and weights | 0.37kW | 0.55kW | 0.75kW |
|------------------------|--------|----------|----------|
| Outlet diameter | 1" | 1" | 1" |
| Height: | | | |
| Pump | 535 mm | 694 mm | 830 mm |
| Motor | 338 mm | 368 mm | 408 mm |
| Total (pump + motor) | 873 mm | 1 062 mm | 1 238 mm |
| Weight: | | | |
| Pump | 2.4 kg | 3.2 kg | 3.5 kg |
| Motor | 5.6 kg | 6.4 kg | 7.5 kg |
| Total (pump + motor) | 8.0 kg | 9.6 kg | 11 kg |

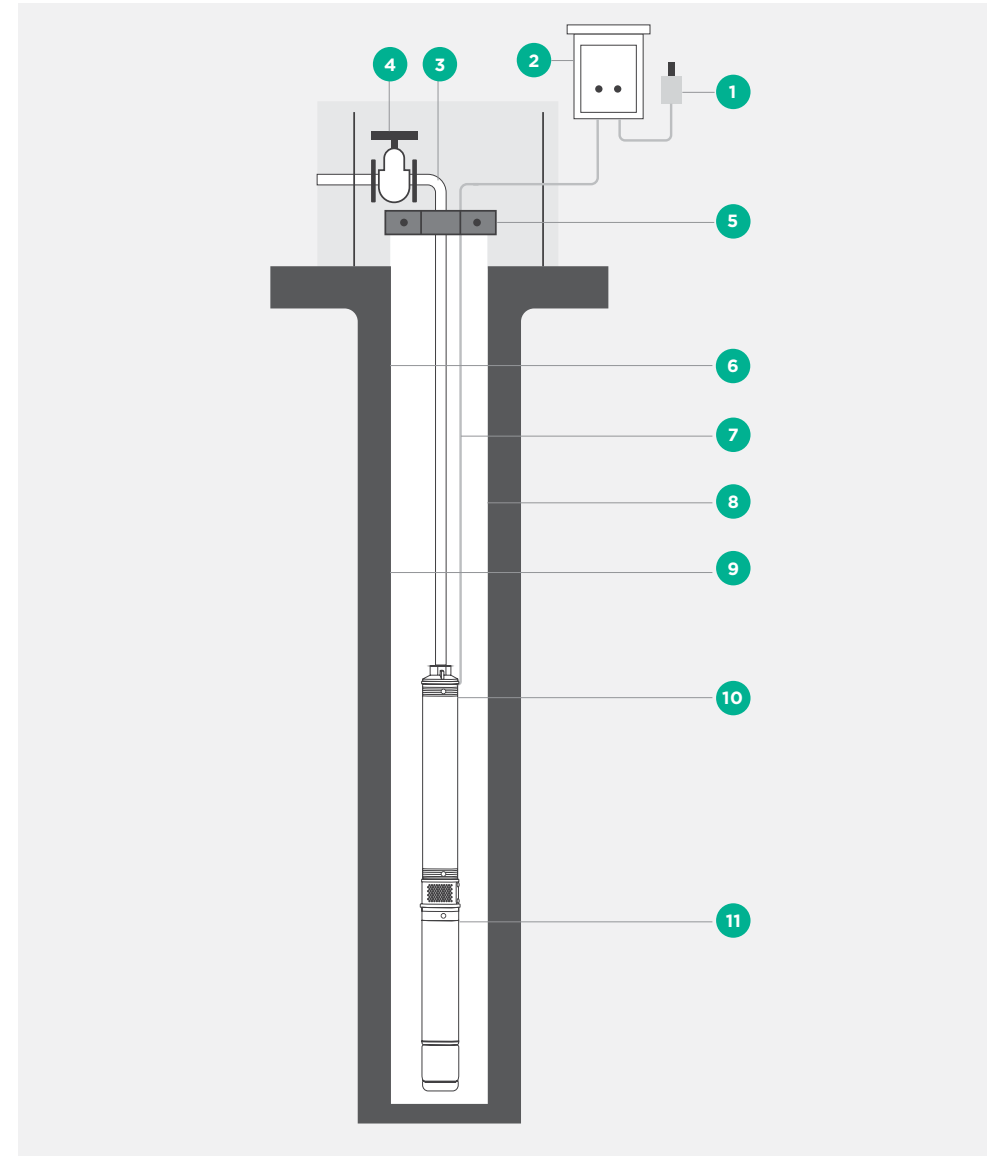
| Construction characteristics | | | |
|------------------------------|---------------------|--------------------|-------------------------|
| Wet end | | Motor | |
| Pump external casing | AISI 304 SS | External casing | AISI 304 SS |
| Delivery casing | Cast-Cu ASTM C85500 | Top chock | Cast-Cu ASTM C85500 |
| Suction lantern | Cast-Cu ASTM C85500 | Bottom support | AISI 304 SS |
| Diffuser | Plastic.PC | Mechanical seal | Carbon - Ceramic |
| Impeller | Plastic.POM | Shaft | AISI 304 SS - ASTM 5140 |
| Shaft | AISI 304 SS | Bearing | NSK |
| Shaft coupling | AISI 304 SS | Seal lubricant oil | Food grade oil |
| Wear ring | AISI 304 SS | | |

WHAT'S IN THE BOX?



| No. | Description | No. | Description |
|-----|--|-----|--|
| 1 | Pump | 3 | Control box with built-in capacitor and a 3-point plug |
| 2 | Motor with cable already connected (0.37kW: 60m, 0.55kW: 80m, 0.75kW: 100m) | 4 | Ski-rope (0.37kW: 60m, 0.55kW: 80m, 0.75kW: 100m) |
| | | 5 | A borehole baseplate |

PUMP DIAGRAM



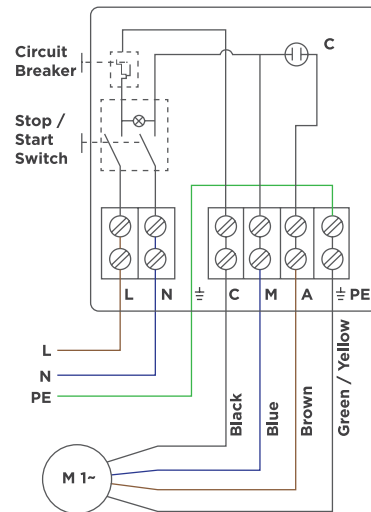
| No. | Description | No. | Description | No. | Description | No. | Description |
|-----|-----------------|-----|--------------------|-----|---------------------|-----|-------------------|
| 1 | Circuit breaker | 4 | Valve | 7 | Cable | 10 | Pump |
| 2 | Control box | 5 | Baseplate | 8 | Borehole casing | 11 | Submersible motor |
| 3 | Delivery pipe | 6 | Static water level | 9 | Dynamic water level | | |

PUMP CONTROLLER

This single phase control box is equipped with a capacitor and thermal overload protector. It provides basic protection against short-circuiting and over current.

| Application range and control parameters | |
|--|---------------|
| Motor type | Single phase |
| Motor power | 0.18 to 1.5kW |
| Voltage | 220V to 240V |
| Frequency | 50Hz |
| Installation environment temperature | -25°C to 55°C |
| Installation environment humidity | (20 to 90)%RH |
| Operating method | Manual |
| Protection | IP44 |

| Specifications | 0.37kW | 0.55kW | 0.75kW |
|--------------------|---------|---------|---------|
| Power | 0.50 HP | 0.75 HP | 1.00 HP |
| Running capacitor: | | | |
| Rating | 20 uF | 25 uF | 35 uF |
| MCB: | | | |
| Current rating | 8 A | 10 A | 15 A |



INSTALLATION

01. Borehole pump piping

- Determine the depth of your borehole pump and cut your HDPE pipe accordingly, keeping in mind that it should extend from your pump to your tank. **Important:** Ensure to clean and deburr the pipe ends.
- Attach a non-return valve to the pump outlet. **Note:** This is important to protect the pump from water flowing back into the pump when it is switched off. Complete piping between the pump and the baseplate.

02. Cabling and securing

- Secure the H07 power cable to the borehole baseplate using a cable gland. **Important:** Be sure to use the correct size compression cable gland.
- Next, secure the H07 power cable to the piping using electrical insulation tape.
- Use ski rope provided to secure the borehole pump to the baseplate. **Important:** Ensure that no strain is placed on the cable or the piping.

03. Electrical connections and testing

Important: we recommend that all electrical work be done by a qualified professional.

- Place the borehole pump in a water container and power on the controller to test the the motor, pump and cable. **Note:** The testing is vital to ensure all is working prior to the pump installation.
- Disconnect the controller after the testing has been concluded.

04. Borehole pump installation

- Gently lower the borehole pump into the borehole, taking care not to damage it or pull on the power cable. **Important:** Ensure that the motor is suspended at least 2 meters from the bottom of the borehole.
- Measure the distance from the pump's depth to the controller and cut the pump's H07 power cable to the correct length. **Note:** It is advised to allow for approximately 1 meter of slack.
- Route the cable through the conduit to the pump controller.

05. Pump controller and float switch installation

Important: we recommend that all electrical work be done by a qualified professional.

- Mount the controller in a weather-sealed box to protect the electrical components from the elements.
- Install a float switch in your water storage tank. Secure the cable with a cable gland.
- Use a correctly-sized conduit to run the float switch cable to the pump controller.
- Connect the float switch to the controller while it is disconnected from the power supply.

06. Flush the system

- We recommend using the water for irrigation or similar applications for 14 days to flush the system.

JOJO PUMP WARRANTY

Please read this warranty in conjunction with the South African Consumer Protection Act 68 of 2008.

- JoJo warrants its pumps to the original end user/purchaser to be free of defective materials and workmanship under normal use for a period of 12-months from the date of purchase from authorised retailers and distributors. To be eligible for warranty repair or replacement, the pump must be returned to the point of purchase during and up to the expiry date of the warranty period. Proof of date of purchase is required.

PRE-INSTALLATION

01. Borehole casing preparation

- Ensure that the borehole casing (protruding from the ground) is closed properly to prevent debris from entering the borehole.
- Remove the soil around the casing to the depth of the borehole cover or at least 300mm below ground level.

02. Borehole casing modification

- Shorten the casing below ground, leaving 20mm to create a smooth edge with. This edge will serve as a mating surface for the borehole baseplate.

03. Trench preparation

- Dig a trench from the borehole to your water storage tank. Ensure that it is wide enough for the pipework and the power cable conduit, and has a minimum depth of 300mm.

WATER QUALITY TESTING

It is vital that borehole water be tested to ensure it is safe for household use and consumption.

02. Liability in terms of this warranty shall be limited to repair or replacement of the pump. Liability for any other losses or subsequent damages is expressly excluded.
03. This warranty does not obligate JoJo to bear any cost of removal, installation, transportation, or other charges that may arise in connection with a warranty claim.
04. The warranty shall not apply to repairs or service necessitated by normal wear and tear or for lack of reasonable and proper maintenance.

This warranty does not apply if in the sole judgement of JoJo the product or any of its components have been;

- (a) Tampered with, disassembled (unless as per JoJo's specific instructions relevant to peripheral pumps and clearly displayed on fan cover), repaired or altered (except as may be pre-authorised by JoJo in writing);
- (b) Subjected to misapplication, misuse, neglect or accident; or
- (c) Used to pump anything for which the pump was not designed. Such use may compromise or harm the pump and/or any of its components.

IMPORTANT: this is the exclusive warranty given by us and no other warranty or guarantees, expressed or implied shall be of any force or effect. No distributor or other person is authorised to assume any liability or obligation for JoJo other than expressly provided herein.

RETURN POLICIES AND PROCEDURES

Refunds

Within 5 days of purchase: as part of the cooling off clause (section 16 of the CPA), the pump may be returned for refund, provided that it is still within the original packaging, unused, and in the original condition.

Within 10 days of purchase: the pump may be returned for refund or replacement if it does not meet the purpose for which intended (section 20 of the CPA), provided that it is still within the original packaging, unused, and in the original condition. In such instance the pump will be returned to JoJo for an evaluation, after which an inspection report will be provided confirming whether it meets the necessary requirements for refund or replacement.

Returns/repairs

Within 12 months: should the pump not operate as specified, or cease to do so within 12 months after being purchased, the return procedure is as follows:

- **Return the pump to the store from which purchased**, together with the proof of purchase (to confirm that it is within the 12-month warranty period). Please ensure that the condition of the pump is as specified in section four of this warranty, and that it is still packed in the original packaging.
- **The store will send the pump to the nearest JoJo factory for an evaluation.**
- At JoJo's election, **(a) the pump will either be repaired** (if repairable) and that repair warranted for three months, or the balance of the 12-month period, whichever period is longer; or **(b) the pump will be exchanged** (this only applies if the pump is non-repairable, and a replacement pump in similar visual condition will be provided by JoJo).
- The evaluation (once the pump is sent back to JoJo), repair/exchange and delivery to the store will take place **within 14 days.**

Our return/repair request form is available on our website at www.jojo.co.za.