BOSCH WATER AND ENGINEERING

Borehole Drilling & Engineering Services

Engineering in Every Drop



FROM GROUNDWATER SURVEY TO RELIABLE WATER SUPPLY

Complete borehole solutions for homes, farms, institutions and industry. Our team manages siting, drilling, construction, testing, pump installation and ongoing maintenance.

Projects may be completed in as little as 2 days, depending on site conditions, permits and project scope.

Is a Borehole Right for You?

When municipal supply is unreliable, water bills are high or rationing disrupts daily life, a properly designed borehole can provide a dependable independent groundwater source.

• **Residential homes:** Family water security

• **Farms and agriculture:** Irrigation and livestock

• **Schools and institutions:** Reliable campus supply

• **Commercial and industrial:** Higher-volume water demand

Why Professional Siting Matters

Drilling without appropriate investigation risks a dry or low-yield well. Hydrogeological surveys evaluate geological conditions, likely groundwater-bearing formations, expected depth and water availability before investment in drilling.

Surveys combine field observations and geophysical measurements to improve site selection; they cannot guarantee a productive borehole. Even when water is encountered, sustainable yield must be established through testing.

In Kenya, borehole permitting typically involves Water Resources Authority requirements, including hydrogeological survey documentation. Additional environmental approvals depend on the project.



Survey rates start from Ksh 35,000 depending on location and complexity.

Our Borehole Drilling Process

One coordinated process, from the first site assessment to long-term support.

01 Hydrogeological Survey

Site reconnaissance reviews geology, rock outcrops, terrain, existing water sources and nearby borehole records. Geophysical exploration uses methods such as electrical resistivity and electromagnetic measurements to identify promising subsurface structures.

Kenyan volcanic, basement and sedimentary aquifers present different drilling challenges. Interpretation of fractures, weathered zones and geological contacts informs siting and expected depth.

02 Drilling & Well Construction



The drilling method is selected for the local formation: air rotary, fluid-assisted rotary or cable-tool percussion where appropriate. Boreholes are constructed with casing, intake screens, gravel pack, sanitary seal and a protective surface apron.

• **Casing:** Supports the borehole and limits collapse.

• **Screens:** Admit groundwater while limiting sediment.

• **Gravel pack:** Supports filtration around screened intervals.

• **Sanitary seal and apron:** Help protect the well from surface contamination.

Well development removes drilling fines and improves hydraulic connection to the aquifer.

Drilling rates start from Ksh 6,500 per metre (stated package includes drilling, casing, gravel packing and test pumping; confirm scope in quotation).

03 Test Pumping & Water Quality

Test pumping determines how the borehole performs under controlled abstraction and helps establish sustainable yield and appropriate pump sizing.

• **Step drawdown test:** Measures well response at increasing pumping rates.

• **Constant discharge test:** Tracks drawdown at a fixed pumping rate.

• **Recovery test:** Monitors water-level recovery after pumping stops.

Typical testing periods depend on use and specification: domestic or agricultural constant-rate tests may run 12-24 hours, while larger critical supplies may require longer tests. Recovery monitoring follows the approved test plan.

Water samples are sent for analysis of parameters such as pH, total dissolved solids, iron, bacteria and fluoride. Treatment recommendations depend on laboratory findings and intended use.

Test pumping: Ksh 70,000-Ksh 170,000, depending on location and accessibility.

04 Pump Installation



Pump selection considers the borehole safe yield, static water level, pumping drawdown, delivery elevation, pipe friction and required pressure. Bosch works with brands including Grundfos, Lowara and Pedrollo. Final pump setting and flow rate are designed around the tested borehole.

05 Ongoing Support

Long-term borehole performance requires periodic inspection and timely intervention. Our services include rehabilitation, preventive maintenance and emergency repairs.

• Investigating reduced yield and changes in water quality

• Addressing sediment, screen or gravel-pack clogging

• Reviewing pump operation and over-abstraction risks

• Repairing or replacing worn components

Why Choose Bosch Water and Engineering?

• **Speed:** Selected projects can be completed in as little as two days.

• **Precision:** Professional hydrogeological investigation before drilling.

• **Compliance:** Guidance through WRA, NEMA and EIA processes as applicable.

• **Quality:** Established pump and equipment brands.

• **End-to-end service:** Survey, drilling, testing, installation and maintenance.



A professionally surveyed and constructed borehole is an investment in long-term water resilience.

Ready to Drill?

Speak with our engineering team about your site, water requirements and project budget. We can assess your needs and prepare a clear, project-specific quotation.



BOSCH WATER AND ENGINEERING LTD.

Visit: Next to Rubis Utawala, Along Eastern Bypass, Nairobi

Call: +254 723 644 888 | +254 758 202 020

Email: sales@boschwater.co.ke

Website: https://boschwater.co.ke/

Pricing note: Indicative starting rates supplied by Bosch Water and Engineering. Final costs, timelines and technical design depend on site conditions and written quotation.

Image note: Illustrative project visuals; not presented as documented photographs of a specific client installation.