Borehole drilling rig

In areas where there is very hard rock or water needs to be collected from a greater depth, our partners use technologies such as boreholes. Hydraulic pumps and rock drills are used to cut through the earth to depths of 100m or more.

Water is pumped to the surface either by hand or, where there is a high demand, using diesel or electric engines. The water is usually stored in large tanks before being piped to tapstands in surrounding villages.

A hydraulic pump powers the drill’s rotary mechanism.

Compressed air drives the ‘down-the-hole-hammer’ to pulverise the rock.

Dust and cuttings are flushed out of the borehole by compressed air.

The drill rotates at 10-30rpm to ensure that the borehole is straight.

“We used to draw water from the Mdwere River. When we drank the water we had stomach problems like diarrhoea. When the clean water was switched on we were amazed that our problems were solved! Everyone in the village uses the borehole and water is available throughout the year.”
Rose Mwale, Salima District, Malawi