

Clean water saves lives

Dando Drilling International rigs are providing clean water in developing countries around the world

Over the past 12 months, Dando Drilling International has proved that the current market for water well rigs is as buoyant as ever. Now part of the Energold group, Dando recently supplied a number of rigs to water-well projects around the world, particularly for non-government organisations (NGOs) providing clean drinking water in developing countries.

It is estimated that 2.5 billion people worldwide do not have access to adequate sanitation, while 1.2 billion have none at all. Contaminated water causes the transmission of fatal diseases such as cholera, hepatitis A and diarrhoea, with the latter claiming the lives of around 1.5 million people each year. Young children are the main victims of this common disease with approximately 4,000 deaths every day.

Improvements in the sanitation facilities of developing countries can reduce the number of mortalities by one-third, and Dando is providing charities and NGOs with the equipment to make this achievable.

One continent where water-well drilling is particularly needed is Africa, where 115 people die every hour because of water contamination and poor hygiene.

Humanitarian aid

Dando recently supplied one of its Watertec 10 rigs to YME, a Norwegian humanitarian organisation, run by Geir Ommundsen, specialising in work in water, sanitation and vocational training.

For many years the group has been building water wells in Somalia and has just purchased its first drilling rig for use in the country's local communities. Seventy per cent of the population lacks



UN borehole drilling programme in South Sudan

adequate access to drinking water, especially in rural areas where 91% do not have this privilege.

Due to the high saline content in Somalia's highest aquifer, the rig is required to drill into a deeper aquifer in order to obtain clean, uncontaminated water. Considering these conditions, the truck-mounted Watertec 10, which provides a 10t pullback, was the ideal choice for the project.

The rig offers the ability to drill to depths of 300m, and was supplied with a high-specification mud pump and compressor. The rig was also supplied with a support truck, consumables, spares and training, making it drill-ready. However, due to security considerations, the Watertec 10 is currently in Dubai waiting for on-shipment.

Grant-aided contracts

Further down the East African coast, Dando supplied another four Watertec 10 drills for a Japanese grant-aided contract in Mozambique. Two of the rigs will be used in Maputo, the country's capital and largest city, while the other two will be based in Gaza province.

The rigs are once again being used to provide clean water to the country's inhabitants. Approximately 23% of the urban population (accounting for 38% of the total population) and 71% of people living in rural areas of the former Portuguese colony do not have adequate access to clean drinking water, while 61% and a staggering 96% in urban and rural areas respectively lack access to suitable sanitation facilities.

These factors contribute to the country having the 13th-highest infant mortality rate in the world, with 78.75 deaths for every 1,000 live births.

Two years ago, Belgian NGO SLCD (Service Laïque de Coopération au Développement) purchased a Watertec 10 for a water project in Burkina Faso. In its first drilling season the rig drilled 80-plus, boreholes. In its second season the rig has so far drilled a total of 100 boreholes in the country, 68 discovering good sources of water and 32 testing negative. Another 19 boreholes are scheduled for this year and will hopefully lead to the discovery of more clean water.

"In Africa, 115 people die every hour because of water contamination and poor hygiene"

Watertec 10 water well project in Sudan



Technical details

Dando Watertec 10

The mid-range Watertec 10 is able to achieve 300m water wells and, like all Dando rotary Watertec rotary machines, it is available fully equipped to drill using both mud rotary and DTH techniques. The Watertec 10 is the smallest of the rotary water well range to be fitted with an on-board compressor as standard.

It features:

- Pullback: 10,000kg
- Torque: 8,850Nm
- Mud pump: 757 L/min
- Compressor: 900cfm/350psi
- Drilling capacity: 348m with 114mm (4.5in) drill rods

Dando Buffalo 3000

This cost-effective percussion-drilling rig is favoured by NGOs and funding agencies for installing hand-pumped water wells. It is a simple yet effective well-drilling machine, which can operate in areas of poor infrastructure and difficult terrain. The rig has lower maintenance requirements than a standard water well rig. It is robust enough to last for decades and can be pulled behind any lightweight four-wheel drive vehicle. It features:

- Single lift pull: 3,000kg
- Mechanical clutch
- 20hp diesel engine
- Drilling capacity: 152mm (6in) to 90m and 203mm (8in) to 61m



Dando Buffalo 3000 at a UN project in Sri Lanka

Hand-pump wells

At the other end of the scale, Dando is about to ship a Dando 3000 Buffalo to the UN in Liberia. This is a water well version of the tried and tested Dando light-cable percussion rig. It will be used to supply water to refugee camps along the border with Ivory Coast. The Dando Buffalo is a very simple water well rig and is capable of drilling a hand pump well in soft or

loose formations to a depth of 50-60m.

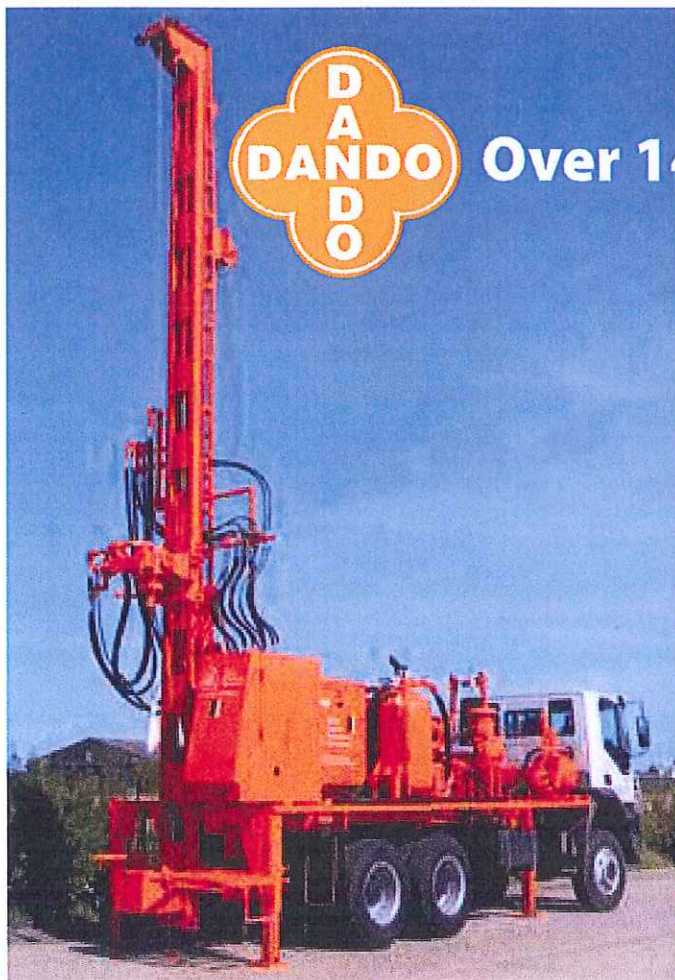
Dando's water well drilling equipment provides its customers with the very best combination of performance and value. A well-maintained Dando machine can last for decades.

In Ethiopia, 25-year-old Dando 800s can still be seen in operation. Also, Dando's wide range of rigs allow for differing water well drilling factors, including geological

conditions, depths and budgets, thus making clean water an achievable goal for both the largest and smallest NGOs and charities all around the world.

Benefiting from over 140 years of expertise in the drilling industry, Dando is also a leading global supplier in the mineral exploration and geotechnical drilling sectors with the Mintec and Geotec model ranges. ▼

For information and technical details visit www.dando.co.uk. *Figures taken from the UNICEF, WHO and CIA World Factbook websites



Over 140 years of experience

Drilling rigs for:

- ◆ Water wells
- ◆ Mineral exploration
- ◆ Geotechnical
- ◆ Geothermal
- ◆ Environmental monitoring

Tools & consumables

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