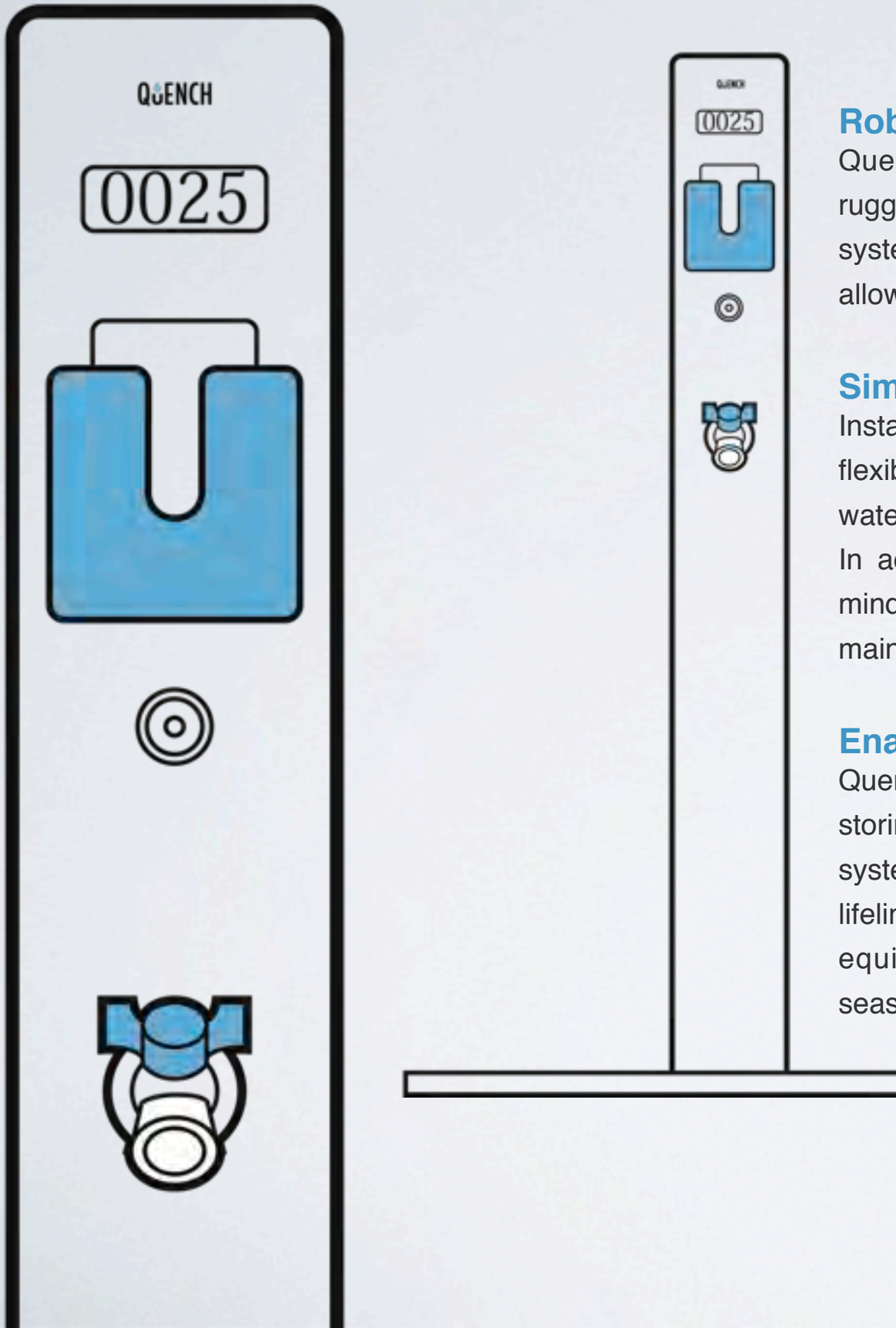
QUENCH

Smart Water Dispensing

www.quenchsystem.com



Robust Construction

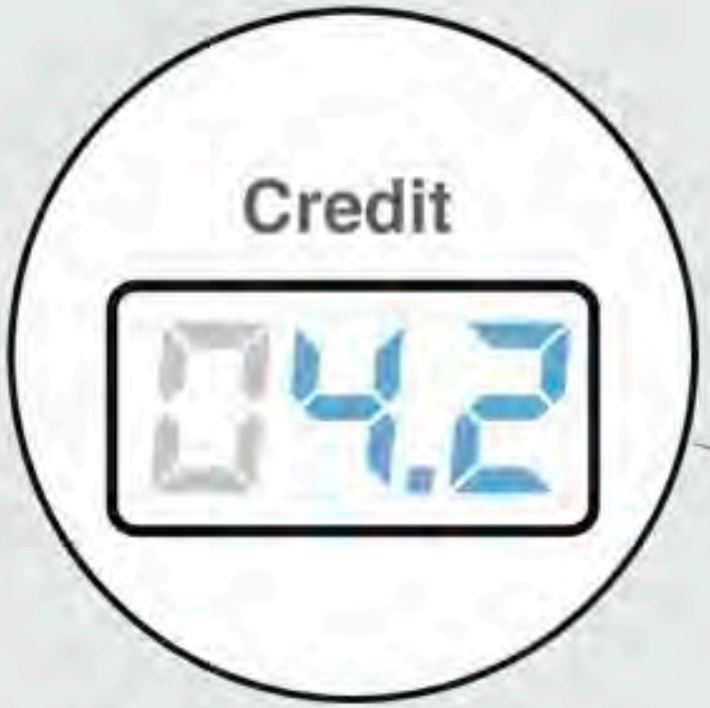
Quench lowers maintenance costs with a rugged, low-cost design. During repair, the system can be converted to manual operation, allowing for continued water access.

Simple To Use

Installing and maintaining Quench is simple and flexible. The kiosk unit can replace any existing water system, whether grid power exists or not. In addition, Quench is built with modularity in mind, so parts can easily be replaced when maintenance is needed.

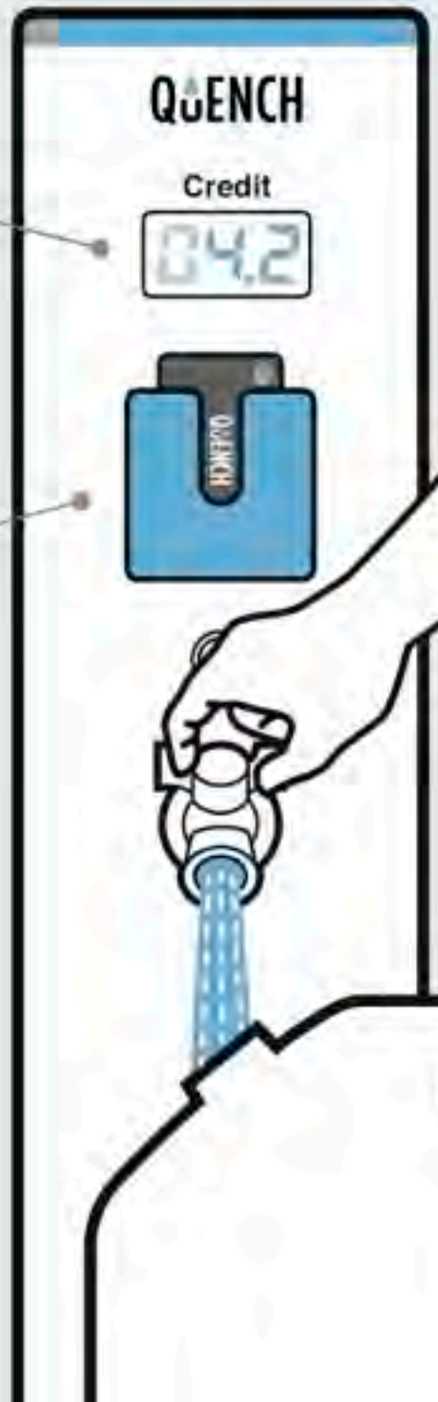
Enables Fair Distribution

Quench enables accurate daily water metering, storing allotments in a tamper-proof smart card system. This allows operators to allocate daily lifeline water amounts to families and ensure equitable distribution of water based on seasonal availability.

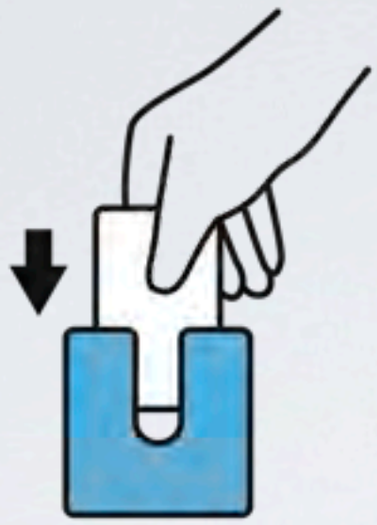


Water credit display

Smart account card



1 Insert card



2 Verify credit

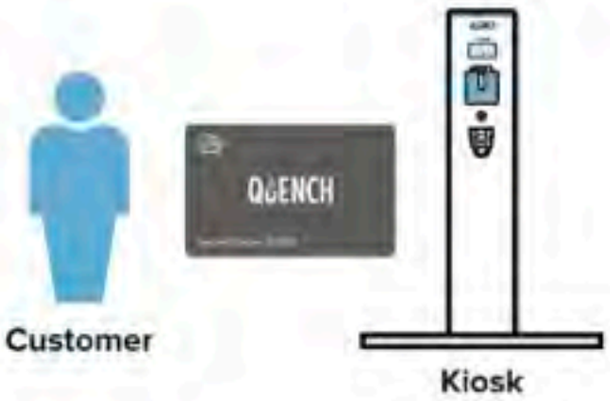
3 Press button

4 Collect water

HOW IT WORKS

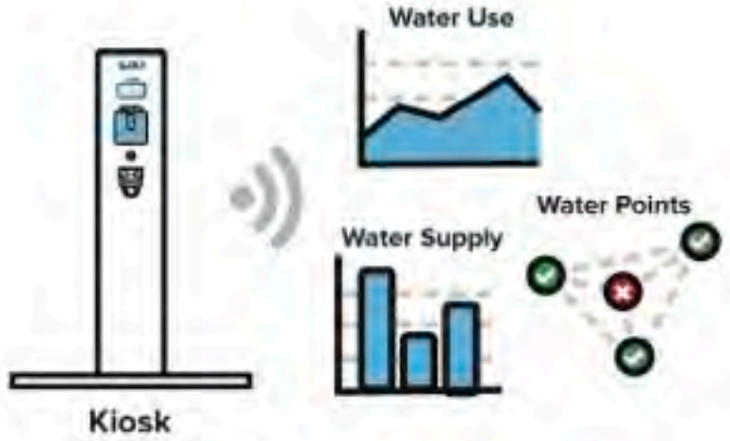
CREDIT

Customers obtain Quench cards and credit from a local vendor or attendant



DISPENSE

Customers use their card to receive water from a Quench kiosk at any time of day



MONITOR

The Quench kiosk records each transaction and monitors the system for maintenance issues in real-time

BENEFITS

For Customers

- Quench provides more reliable, 24/7 service, while the costs of staffing and financial management of the water dispensing operation are reduced.
- Quench allows local operators to design a payment model that fits their customers' needs, including pay-as-you-go, pre/post paid usage or free/subsidized service.
- Water usage is easy to track and very transparent.
- Ensures allotment of a lifeline amount of water based on seasonal availability without spending time in a queue or having to store at home.
- Quench kiosks are easy to operate and help minimize transaction costs while ensuring clarity.

For Governments and Operators

- Quench kiosks are easy to install and maintain, and feature a rugged, anti-tamper and weatherproof design. Components can be easily removed and replaced and the kiosk can still be operated during maintenance.
- The Quench system is designed to be adaptable to many different settings and dispensing options, allowing for it to be implemented in diverse environments.
- Quench makes water schemes transparent. The system provides auditable transaction logs, allowing governments and donors to create performance-based contracts with water suppliers, ensuring improved maintenance of water points.
- If available, Quench can be connected to cellular or wireless networks to enable real-time metering and system monitoring.

Columbia Global Center Africa Launch

LAUNCH | Varsity's new centre

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DIANA NGILA | NAIROBI

Prof Jeffrey Sachs (right), the director of Columbia University's Earth Institute explains to President Kibaki and Ethiopia's Prime Minister Hailemariam Desalegn (second left) how the smart water meter works during the launch of the Columbia Global Centre for Africa at the KICC, Nairobi yesterday. The centre will host the university's research and academic activities and the Millennium Development Goals Centre for East and Southern Africa.

Columbia Global Center Africa, Nairobi

NCWS Company HQ

Mathare, ~500K

Water issue #1 - Brittle pipes and leaks


KIWYOZI

Water issue #2 - Contamination

NCSW appropriate piping

Water issue #3 - Illegal taps

This illegal tap was metered and was charging

An example of a water kiosk in Mathare

Water issue #4 - Vandalism

Documented incidents of burning and theft

Water issue #5 - Lack of information around upcoming water metering

Water issue #6 - Non consistent charge/pay model

Water issue #7 - Shortage of water

Illegal tap right outside of kiosk

Hang-out spot and opportunity for more

Water issue #8 - Wastage of water

Water issue #9 - Variable size containers

Water issue #10 - Closed kiosks

Water issue #11 - Only one meter

Free water?


HOPE
HOPE
HOPE

World Bank HQ

Water Ministry

Water issue #12 - Similar issues in residential settlements

SOME GENERAL FACTS GATHERED

- Average cost = 2 Shillings x 20L
- In reality, the cost varied tremendously from 2 to 7 or sometimes as high as 20 Shillings, depending on availability
- Higher cost of water for the poor because kiosks need to be manned by an attendant
- 2 people per kiosk per day for operating the kiosk
- ~300 people per day on average, work day from 6.30am to 9pm
- Cost for setting up a current kiosk: 470K Shillings
- Need for monitoring, metering and remote sensing across the board
- A lot of the same issues present in residential areas (brittle piping, illegal taps, flat rate charging, etc.)

THANK YOU QUENCH TEAM!

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