

# **Hydrorock – Subsoil Aquifer Irrigation System**

# Development of our new BD 45 IR / BD 112 IR Aquifer Block now allows the Hydrorock Irrigation System

Based on a highly innovative, totally new mineral wool product, this 100% natural product is totally ecologically and environmentally friendly. Aquifer Blocks act exactly like a natural aquifer, soaking up water like a sponge, holding it like a reservoir and releasing it like a watering can.

## Optimises subsoil moisture & cuts water use

Hydrorock irrigation system targets water delivery directly to the soil around plant roots. Water use is reduced by over 80% by eliminating wasteful surface watering evaporation and misdirection of water underground. The slow release of water from the Aquifer Block, only as required, ensures optimal soil water balance and enables each plant to draw the exact water it needs when it wants it.

# Optimises plant health, strengthens root structures & increases crop yield

Putting fertiliser and nutrients in the water enables them to be delivered exactly when and where they needed, maximising plant health, stronger and deeper root structure which significantly increases crop yield. This eliminates wasteful, labour intensive practice of surface-spread fertilisers.

#### Increases land value & reduces labour costs

Hydrorock irrigation system enables currently uncultivated land to be brought agriculture use and boosts crop yields of existing agricultural land. This significantly increases overall food production and greatly increases land value. The automation of key labour-intensive activities, such as watering & spreading fertiliser, reduces labour costs.

## Highly efficient & highly cost effective

Version: 17-2-2021

Long-life maintenance free operation ensures highly efficient performance for many decades. Increased crop yields, increased land value and reduced labour costs ensures installation payback within a few years.

# Highly versatile in use & totally flexible in configuration / installation



The Hydrorock Irrigation System can be used for all types of trees, plants and crops - in agricultural fields, roadsides or gardens, and for commercial or domestic purposes.

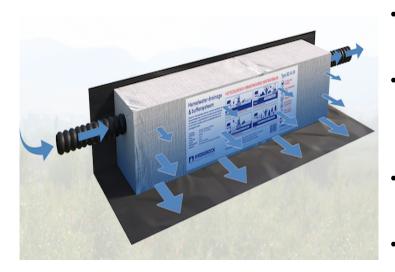
It has limitless possible configurations according to type of flora, soil, terrain and prevailing weather.

Installation is infinitely scalable from single Blocks to multiple arrays covering hundreds of metres, under trees, next to bushes / shrubs or between rows of crops.

# Technical Information - BD 45 IR / BD 112 IR Aquifer Block functionality & performance:

- Size of Block (cm) 45 120 L x 20 H x 20 W / 112 120 L x 33 H x 30 W
- Water capacity Block holds 45/112 litres of water 95% of its cubic volume
- Water is held in suspension in the spaces between the mineral wool fibres of the Block and is released by capillary action as the water pressure falls in the surrounding soil as dries





- Geotextile membrane wrapping Aquifer Blocks prevents sand and dirt influx
- Impermeable sheeting can be placed beside and under Blocks to direct water flow towards roots and further reduce water loss
- Integrated perforated pipe allows rapid inflow & storage water in each Block underground
  - Roots do not need to penetrate Aquifer Blocks as the water they require is in soil surrounding the Blocks

- Strings of Aquifer Blocks are connected together in series by flexible plastic tubing
- Water flows between Blocks sequentially

   as one Block is fully saturated the water
   then flows through the connecting pipe
   to the next Block in the string
- BD 45 / 112 IR Aquifer Blocks can be installed in a closed-loop system
- System can be fitted with automated moisture sensors & water filling capability
- System can be operated completely remotely from anywhere





- installation is very simple and quick with minimal disruption
- Narrow excavation trenches (25/35cm) with immediate backfilling as each block is installed
- The Blocks are very light capable of being lifted and installed with ease by one man.
- No specialist installation engineering or equipment is required with simple snap-together fittings requiring no special skills or tools

For more information please contact us on ; info@hydrorock.com or visit us on : www.hydrorock.com