

## Subsoil Aquifer Irrigation Solution



### The BD IR Hydrorock Block is a key component in the Hydrorock Irrigation System

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

### Optimises subsoil moisture and cuts water use

The Hydrorock Irrigation System targets water delivery directly to the soil around plant roots. Water use is reduced by over 80% by eliminating wasteful surface water evaporation and misdirection of water underground. The slow release of water from the Hydrorock Block ensures optimal soil water balance and enables each plant to draw the exact amount of water it needs.

### Optimises plant health and increases crop yield

Adding fertiliser and nutrients in the water enables them to be delivered exactly when and where they are needed, maximising plant health which significantly increases crop yield. This eliminates the wasteful and labour intensive practice of surface-spread fertilisers and inhibits weed growth.

### Increases land value and reduces labour costs

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

### Highly efficient and cost effective

Longlife maintenance-free operation ensures highly efficient performance for many decades. Increased crop yields, increased land value, and reduced labour costs, ensure fast installation payback.

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

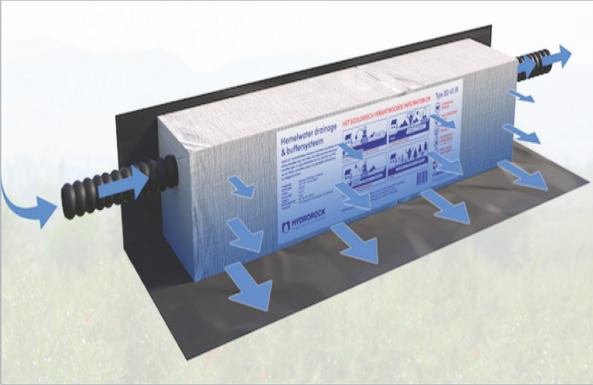
The Hydrorock Irrigation System can be used for all types of trees, plants and crops –in agricultural fields, roadsides or gardens, and for commercial or domestic purposes.

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

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

## Technical information – BD 40 IR Hydrorock Block functionality & performance

- Size of Block (cm) – 100 L x 20 H x 20 W .
- Water capacity –Block holds 40 litres of water –94% of its cubic volume.
- Water is held in suspension in the spaces between the mineral wool fibres of the Hydrorock Block, and is released by capillary action as the water pressure falls in the surrounding soil as it dries .



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

- Strings of Hydrorock Blocks are connected together in series by flexible plastic tubing.
- Water flows between Hydrorock Blocks sequentially –as one block is fully saturated, the water then flows through the connecting pipe to the next block in the string.
- BD 40 IR Hydrorock Blocks can be installed in a closed-loop system.
- System can be fitted with automated moisture sensors and water-filling capability.
- System can be operated remotely from anywhere.



- Installation is very simple and quick with minimal disruption.
- Narrow excavation trenches (30 cm) with immediate backfilling as each Hydrorock Block is installed.
- The Hydrorock 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. No special skills or tools are needed.

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