

Rainwater harvesting solutions

Rocla Southern Africa, in collaboration with Rocla Australia, has launched the Rocla ecoRain® and ecoRain® plus water harvesting systems in a bid to encourage rainwater harvesting, retention and re-use.

SOUTH AFRICA is one of the many countries today faced with water problems, including the high cost of potable water for consumers. In Australia, there has been a shift towards water-sustainable cities and integrated water cycle management.

"These systems aim to conserve potable supply by implementing the rainwater capture and re-use aspects of water sensitive urban design," says Justin Kretzmar, sales engineer at Rocla.

According to authorities and research organisations in Australia, by using rainwater tanks for non-potable applications, the need for expensive systems such as desalination and recycled wastewater can be delayed. In leveraging this, many developers and municipalities are changing legislation and developing codes which require the installation of rainwater tanks for toilet flushing, irrigation and laundry uses.

"With South Africa facing sanitation and water challenges, the ecoRain® systems, which are designed to capture clean rainwater that is then stored underground for further use, could be an answer. As the source and quality of any captured water cannot be assured, the ecoRain® system is intended to deliver stored rainwater for non-potable applications, thereby saving costs and addressing certain sanitation

challenges, whilst conserving potable water," adds Kretzmar.

"The captured water is conveyed through numerous roof gutter down-pipes to the ecoRain® filter, which removes all debris and waste greater than 0.5 mm diameter in particle size. Only clean water is then transferred to the ecoRain® concrete tank, whilst the coarse litter is continuously removed from the filter and discharged through the overflow to the storm water drainage system," continues Kretzmar.

The Rocla concrete tank is strong and durable, with a very long lifespan. As the tank is installed underground, it will not take up valuable land and the load-bearing capacity allows it to be located almost anywhere on site.

"Underground concrete tanks are an ideal method of storing water, proving an almost germ-free environment away from light and heat. Concrete cisterns are strong, durable, last indefinitely and help to neutralise rainwater," says Kretzmar.

Sustainability of scarce resources is a global imperative and with Rocla concrete tanks, the capability of existing water supply systems will extend to keep pace with population growth. Harvested water can be used for toilets, laundry, car washing, irrigation, etc.

Common rainwater harvesting systems

come in plastic form and are traditionally placed above ground, exposing the tank to heat and sunlight, which are detrimental to water quality. Heat and UV rays from the sun can cause these tanks to have a limited life span, which means replacing tanks and increased costs. This type of 'smaller' tank is traditionally positioned directly below one down-pipe and collects water from this source only. **35**

BELOW The tanks have capacities ranging from 3 000 litres to over 1 000 000 litres

