

Cutting through concrete



Diamond Products' Razor reinforced diamond wire cuts through reinforced concrete accurately and without causing vibrations in the structure.

State-of-the-art diamond technology recently launched in South Africa enables a thin piece of diamond wire to cut through reinforced concrete easily, neatly and accurately.

The new Razor reinforced diamond wire from Diamond Products makes use of unique diamond-beading technology which enables the user to cut up to 4m² of heavily reinforced concrete per hour, using a closed-loop system attached to a hydraulic wire saw.

Director of Diamond Products, Brian Clark, says that the secret to this new technology is in the highly durable beads, which are made in South Africa using a metal-matrix system whereby the diamonds are mixed with metal powders before being sintered.

"The reinforced diamond wire is made up of a flexible 5mm multi-strand steel cable that is covered with 40 diamond-impregnated beads per metre," Clark explains.

"A high-strength rubber is added to form a strong and flexible coating around the cable that holds the beads firmly in place, resulting in a highly durable product that is faster and more reliable than any other cutting wire available in South Africa."

Holmes Concrete Sawing and Drilling, a precision concrete cutting and core drilling company, has used Diamond Products' range of reinforced diamond wire on a number of projects in the country. Managing director, Andrew Holmes, says that, when working on reinforced concrete, diamond wire is a far better alternative to concrete saw blades or percussion tools.

"The biggest advantage of the wire is that it cuts faster, deeper and more accurately than concrete blades, which have a maximum reach of just 600mm," he notes. "This diamond wire has enabled us to undertake a number of large projects which would not have been possible

previously. These include bridge renovations as part of the freeway upgrades, work on the Gautrain project and at Durban harbour."

Holmes Concrete Sawing and Drilling, established in 1993, has branches in Gauteng and KwaZulu-Natal and provides specialised concrete cutting services to the infrastructure sector and to industry. The company has been working with Diamond Products for the past 17 years.

Although diamond wire technology has been available to the South African construction sector for the past decade, Clark says that contractors have only recently discovered the advantages of the product. "As diamond wire has become more affordable and readily available, contractors have begun to realise the benefits that the product offers over traditional and industry-standard tools," he says.

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