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Wall-to-wall market coverage

The costly and time-consuming task of heavy-duty industrial concrete cutting has been simplified by Diamond Products' new range of Arix wall saw diamond blades.

Diamond Products is ensuring that industrial operations in South Africa are able to cut through steel-reinforced concrete in record time, with its state-of-the-art range Arix wall saw diamond blades. The wall saw blades, distributed nationwide exclusively by Diamond Products, are manufactured using technology, a process of controlled deposition of diamonds onto a substrate, at predetermined positions.

"Arix technology ensures that diamond grits are placed with precision into three-dimensional patterns on the blades in order to ensure the maximum performance of tools in heavy-duty construction applications," explains Darryl Gray, Diamond Products director, adding, "Arix technology has been proven to increase the lifespan of diamond tools by 400%, while achieving cutting speeds of twice the industry-standard."

Specialist concrete core drilling and wall sawing expert, GA Cut Core made use of the 800mm Arix blade in October 2010, after being commissioned by a large bank to cut through its embedded basement walls to make room for new generators to be installed at its headquarters in Johannesburg.

GA Cut Core owner Anton Nel points out that the Arix wall saw blade was the only range that was able to meet the demands of cutting through the high-strength basement walls. "Embedded walls become harder with age, and are ultimately more difficult to cut through," he explains, adding, "This demanding challenge could not be met by industry-standard blades, which placed the cutting machine under extreme pressure, and wore out before the wall had been fully cut. The Arix blade was, however, able to cut through the concrete quickly and

effectively within a matter of days."

Nel notes that the Arix blade was fitted to a 15kW wall saw. "Despite the challenges posed by the steel reinforcement, the Arix blades provided consistency throughout the cutting process. What's more, the wall saw was able to run at lower pressure, which reduces maintenance significantly," he says.

Gray points out that this is achieved thanks to the alignment of diamonds in separate rows on the blade, which ensures that each diamond carries precisely the same workload. "This unique design ultimately extends the lifespan of the tool, and allows for quicker and more accurate cutting, making it the ideal solution to construction projects, where steel-reinforced concrete has to be cut down to size," he says.

In another successful application, industrial cutting and coring company, Core Connection, recently made use of an 800mm Arix blade to cut concrete columns during an upgrading project at Rosebank Mall in December 2010. Core Connection owner Mark van Zyl points out that the company spent six months working on the project using industry-standard blades, which were unable to meet the demands.

"The Arix wall saw blades operate considerably faster and have a longer lifespan than industry-standard wall blades, which enabled Core Connection to take on this challenging project, which would otherwise have been almost impossible," he explains. Van Zyl notes that cutting machines are placed under extreme pressure, in excess of 200-bar, when cutting through steel reinforced concrete using industry-standard blades. "By operating at such

high pressure, there is a significant risk of the machine breaking down, which could result in maintenance and repair costs exceeding R20 000," he explains, adding, "When using the Arix blade, the machine runs at between 120 and 150-bar, which significantly increases its lifespan. What's more, the risk of unscheduled downtime due to machine failure is greatly reduced."

Diamond Products co-director Brian Clark points out that Arix technology is only applied to the higher-end of Diamond Products' range of equipment, which is custom-built for the most demanding and challenging cutting tasks. "Diamond Products prides itself on providing the best product for the correct application, and by introducing the revolutionary new concept of Arix technology to the heavy-duty cutting industry, we are continuing to provide the best service in the industry," he explains.

Clark notes that the biggest challenge facing the industry today is an increase in the number cheap and inferior-quality products on offer. "While the cheaper products may seem more cost-effective at face value, the poor quality of the blades could end up damaging the machinery and delay an entire project, which is far more costly than spending an extra 15% on internationally-recognised Arix blades. Most established companies are aware of this fact, however, a number of smaller start-up companies are still falling into this trap," he explains.

Need to know more?

Diamond Products is a specialist in the manufacture, assembly, sales and support of diamond tools and equipment for the construction, glass, quarrying and flooring industries. Based in Jet Park, the company is unique in its ability to assemble and support its product range and is the only diamond tool company in South Africa with laser welding facilities for the manufacture of diamond blades and core drills.

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