



## PROPERTY MAINTENANCE & REFURBISHMENT

SPECIFIER SEPTEMBER 2012

15

### Diamond blades assist in remodelling buildings

**A**ffordable Housing Company (Afhco) has taken on two derelict office buildings in the Johannesburg city centre to refurbish and convert them to provide residential apartments for the lower income market.

Q&A Coring was contracted by Afhco in March 2012 to cut light wells through the centre of each steel-reinforced concrete floor of the two seven-storey buildings. Henry Dippenaar, managing director of Q&A Coring, says that to complete the project successfully the company used Arix diamond wire, Arix 800mm diamond concrete cutting blades and RC70 diamond core bits and segments supplied by Diamond Products.

"The light wells had to be cut through the inside perimeters of both buildings so that the inner apartments will receive adequate sunlight and fresh air. By using selected products from Diamond Products, we were able to cut out the concrete slabs inside the beams while ensuring that the integrity of the structures was preserved from the roof down."

Dippenaar says all the corners and ends of the cut lines on the perimeters of the openings were core drilled to prevent over-cutting. "The slabs were cut into one metre by one metre blocks using Arix diamond wall saw blades driven by a hydraulic powered wall saw machine. The concrete blocks were then lowered safely to the next level, using gantries and a block-and-tackle."

Diamond Products director Brian Clark highlights that the Arix wall saw blades are manufactured using world-renowned technology that involves the controlled deposition of diamonds onto a substrate at predetermined positions. "Arix technology ensures that the diamond grits are placed with precision into three-dimensional patterns on the blades so that the tools perform optimally in heavy-duty construction applications."

According to Clark, Arix technology has been proven to increase the lifespan of diamond tools by up to 400% and achieve cutting speeds

of twice the industry standard. Dippenaar endorses this claim saying, "Q&A Coring has cut an estimated 850m of 150mm-thick concrete with just one Arix diamond blade. This means the product is far more reliable and cost-effective than the nearest competitor brand, which would have required at least four blades for the same work."

Another aspect of Q&A Coring's contract was to

remove precast concrete panels which had been attached to the exterior walls of both buildings with steel reinforcing pegs. Dippenaar says, "The façade panels were removed by attaching each one in turn to a floor-bolted block-and-tackle while the reinforcing bars were drilled through using a Shibuya coring machine and diamond-tipped core bits supplied by Diamond Products. The panels were then pulled inside

the buildings before being demolished and removed offsite."

Q&A Coring completed its contract in July 2012. Further refurbishment work is continuing and the apartments are due to be ready for occupation early in 2013, together with retail space on the ground floor.

**Diamond Products**  
 T +27 (0)11 552 8310



*Core drilling and floor sawing using Diamond Products tools to cut through the floors of one of the buildings as part of the refurbishment programme.*

**To advertise in  
 Specifier  
 contact**

Brenda Visser on  
 Tel +27 (0)11 835 2221  
 brenda.visser@influxion.co.za