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In the News...

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Marketing Muscle, and An IRB Extension

By Andrew Webb

Of the Journal

TECH BYTES: TECH BYTES: Quasar International, a small Albuquerque company supplying the transportation industry, is about to get the marketing muscle of one of the world's largest industrial suppliers.

Illinois Tool Works, or ITW, a \$14 billion, publicly traded company that makes a vast range of components, industrial systems and consumables, purchased Quasar last month.

Quasar makes equipment used for nondestructive quality testing of cast metal and ceramic products by measuring the effects of vibration and comparing it to standard results, such as detecting cracks in auto or aircraft engine blocks and other components.

As part of the deal, one of ITW's 750 worldwide divisions, the venerable automotive and aviation industry component testing supplier Magnaflux, will take Quasar under its wing. Quasar will stay in Albuquerque, and will operate as an independent unit of ITW.

"Magnaflux invented nondestructive testing in the 1920s, and has been a leading player in that industry for the 20th century, and intends to do the same in the next," Steve Groeninger, general manager of Magnaflux, said, calling Quasar the "next generation" of nondestructive testing.

"Bringing along what we think is a major advance in technology like Quasar offers us a good way to get started."

Quasar's technology has roots in technology licensed from Los Alamos National Laboratory in the mid-1990s to measure resonance—the vibrational response returned by an object in response to some sort of stimulation.

In Quasar's case, a casting, such as a forged-steel piston connecting rod or part of a car's suspension is vibrated, and resonant frequencies are then compared to a standard frequency for a part that is known to be acceptable. Pattern-seeking algorithms developed by Quasar can determine whether a part is cracked or is hiding a manufacturing defect, while accounting for subtle differences in production that would not necessarily harm the part.

The nondestructive testing process allows for checking the quality of a production run without actually cutting into parts.

Jim Schwarz, one of Quasar's two co-founders, compares the technology to a consumer assessing fruit at the grocery store.

"Say you want to buy a watermelon. You can't cut it in half, so you thump it, and supposedly, from the thump, you can tell if it's ripe," he says.

The company was a presenter in Technology Ventures Corp.'s 2000 Equity Capital Symposium, soon after which it received about \$3 million in equity capital from Arizona-based Valley Ventures, which has received some backing from the State Investment Council and has an office in Albuquerque, and two out-of-state venture firms.

Itself a spinout from the now defunct, 20-year-old technology commercialization firm Quatro Corp., Quasar created its own spinout in 2003. Albuquerque-based Exagen Diagnostics uses the same pattern-seeking software systems to diagnose, predict the course of, and plan treatment for diseases like breast cancer.





Quasar has also licensed its technology to other companies, including Albuquerque's Vibrant, which uses it to test critical aircraft parts, such as jet turbine blades, during routine aircraft maintenance.

Quasar has sold about 100 of its units to auto companies or their suppliers in North America, Europe and Asia. One of its largest customers is the network of suppliers to General Motors, which use Quasar's technology to quality check parts like brake master cylinders.

Schwarz said one Mexican supplier of engine components to GM reported an 80 percent cost reduction for quality inspection, and slashed the percentage of parts scrapped at the factory from 7 percent to 1 percent a year after it began using Quasar's systems.

Illinois-based Magnaflux makes widely used dye penetrant and magnetic particle nondestructive testing systems for the automotive and aviation industries. Its products are used for all stages of a product's life, from factory production testing to maintenance and overhaul shops.

In the automotive industry, the name Magnaflux has become synonymous with detecting elusive cracks in engine blocks and other components. Magnaflux employs 100.

Schwarz says the acquisition by ITW and alignment with Magnaflux is an important milestone for a technology his small company has labored for 10 years to perfect.

"Most important to me is the sense of validation to have the world's greatest nondestructive testing company say 'this is something of value, we're going to buy it,'" Schwarz said.

Quasar, which now employs 35 in New Mexico and at an office in Detroit, will likely grow with the marketing and financial backing of ITW and Magnaflux.

"We think Quasar is poised for significant growth," Groeninger said. "It is our intent to invest in the business and help maximize its growth."

Quasar has annual revenues of about \$4.5 million. Terms of the sale to ITW were not disclosed.

ECLIPSE IRBS EXTENDED: Eclipse Aviation last week successfully appealed to the Albuquerque City Council for a two-year extension on \$45 million in industrial revenue bonds.

The city approved the bonds in 2004. Eclipse planned to use them primarily to acquire manufacturing equipment, test equipment, tooling and other infrastructure. But in a recent request to the city, the company said it has only spent about \$17 million, because of unforeseen delays ramping up to full production of its \$1.5 million Eclipse 500 jets.

Industrial revenue bonds do not put the city at financial risk, as the companies themselves are responsible for any debt, but they do allow for abatement of taxes on property and capital equipment. In Eclipse's case, the city stipulated that the company would have to pay back any tax incentives if it were to cease operations within a set time frame.

The bonds were originally set to expire July 30. In its application for an extension to July 31, 2009, Eclipse noted that its employment had far exceeded the 2004 estimate of 577 people by 2007.

The company employs more than 1,000.

The council unanimously approved the request.

