

Press Release

For Immediate Release

Advanced Diamond Technologies Launches Revolutionary Family of Diamond Pump Seals

Romeoville, IL, February 25, 2008—Advanced Diamond Technologies, Inc. (ADT), the world leader in developing and applying diamond films for industrial, electronic, and medical applications, launches a revolutionary family of mechanical seals to improve efficiency, save energy, and reduce costs in fluid pumping systems. Known as UNCD[®] Seals, these products provide the unsurpassed benefits of diamond at prices comparable to silicon carbide face seals.

ADT's patented and award winning UNCD[®] (ultrananocrystalline diamond) adds the low wear and low friction attributes of diamond to the demanding application of mechanical seals for fluid pumps. UNCD is so smooth that it can be run directly against conventional blister resistant carbon and silicon carbide counterfaces making UNCD Seals suitable for a wide variety of pumping applications.

Customers can immediately realize the benefits of UNCD Seals: energy savings by reducing friction at the sealing interface, increased mean time to replacement due to longer lasting faces, increased tolerance to poorly lubricated conditions thereby reducing maintenance costs, and reduced face temperatures permitting the pumping of thermally sensitive media.

"Industry has been waiting for a long time to leverage the benefits of diamond—its hardness, chemical inertness and low friction qualities—in affordable face seals," said ADT President Neil Kane. "Today's announcement is the first in a series of game-changing products where the unsurpassed properties of diamond are applied to all types of mechanical systems."

According to the U.S. Department of Energy, over 50 percent of pump life-cycle costs result from energy and maintenance expenses; and energy savings of 20 percent or more are possible with systems optimization.

"In accelerated wear tests with extremely poor lubrication we have seen negligible wear on the UNCD faces and reductions in the coefficient of friction of over 75 percent. In the same tests silicon carbide faces fail due to severe leakage," said Charles West, ADT Vice President of Engineering.

ADT also announces the launch of a website supporting this new product family—www.diamondseals.com. It contains overall product information, a performance comparison between UNCD and silicon carbide faces, and an e-commerce component for purchasing seals online. Distributors and manufacturer's representatives interested in carrying UNCD Seals are encouraged to contact ADT.

"We are grateful for the support from the National Science Foundation's SBIR program in helping to bring these seals to market," said James Netzel, ADT Director of Seals Engineering. ADT also gratefully acknowledges the support of the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (DOE-EERE) Industrial Technologies Program for the development and characterization of ultrananocrystalline diamond for rotating equipment applications by Argonne National Laboratory.

About Advanced Diamond Technologies

Formed to commercialize the ultrananocrystalline diamond technology developed at Argonne National Laboratory, ADT is the exclusive licensee to Argonne's portfolio of patents for synthesizing and using

The logo for Advanced Diamond Technologies, Inc. features the company name in white, uppercase letters on a dark green rectangular background. A white, curved graphic element resembling a stylized diamond or a swoosh is positioned above the text.

PR Contact: Jill Jackson
Calyx Consulting
312.231.9870

UNCD. ADT is a World Economic Forum 2007 Technology Pioneer and a Red Herring 100 Award finalist as well as being a runner-up for the *Wall Street Journal's* Technology Innovation Award.

For more information about ADT, visit <http://www.thindiamond.com>. For more information about ADT's UNCD Seals, visit <http://www.diamondseals.com>.

For more information about the National Science Foundation's Small Business Innovation Research (SBIR) program, visit <http://www.nsf.gov/eng/iip/sbir/>.

For more information about the DOE-EERE Industrial Technologies Program, visit <http://www.eere.energy.gov/industry/>.

PR Contact:

Jill Jackson
Calyx Consulting
Tel: 312.231.9870
Fax: 312.264.0319
Email: info@calyxconsulting.com
www.calyxconsulting.com

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