



## Nanotechnology Pioneer Shortens Concept-to-Manufacturing Process With Autodesk Digital Prototyping

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Autodesk Names Elmarco as Inventor of the Month for November 2008

SAN RAFAEL, Calif., Nov. 25 /PRNewswire-FirstCall/ -- Autodesk (Nasdaq: ADSK) has named Elmarco Ltd. (Elmarco), a Czech-based manufacturer of industrial machines for the production of nanofibers, Inventor of the Month for November 2008.

Elmarco relied on Autodesk Inventor software to develop its Nanospider line of machines, which make the production of nanofiber textiles possible on an industrial scale. Nanofiber textiles are highly breathable but have pore sizes that are small enough to prevent micro particles, bacteria or even viruses from passing through, making it ideal for air filtration systems in medical settings or in chip fabrication plants.

The Inventor of the Month program recognizes the most innovative design and engineering advancements made by the extensive community using Autodesk Inventor software--the foundation of the Autodesk solution for Digital Prototyping. A digital prototype allows users to design, visualize and simulate a product before it is built, reducing the reliance on constructing multiple physical prototypes.

"Inventor of the Month Elmarco is the first--and only--company in the world to offer customers machines for the industrial production of nanofibers," said Robert "Buzz" Kross, senior vice president of Autodesk Manufacturing Solutions. "Inventor has helped Elmarco unleash its innovation in the nanofiber industry."

Many times smaller than a human hair, nanofibers have a diameter of 200 to 500 billionths of a meter. The Nanospider machine produces these nanofibers through a patented electrospinning process, in which a rotating drum is partially submerged in a polymer solution and placed in a high-intensity electrostatic field. The resulting nanofibers are highly desirable for filtration and acoustic applications.

### Simplifying with Digital Prototyping

Autodesk Inventor played a key role in helping Elmarco simplify the concept-to-manufacturing process of the Nanospider machines that mass-produce these nanofibers. The 12-member Elmarco design team uses Inventor to create 3D models of the spinning units and the overall machine body that it can easily share with other members of the organization, or reuse for later designs.

"Autodesk Inventor is easy to learn and very user friendly," said Jan Cmelik, chief designer at Elmarco. "By leveraging its capabilities, we're able to reuse existing designs for approximately 80 percent of the parts on our industrial production line."

For the remaining 20 percent of the parts that must be custom developed--such as chemical distribution vehicles--Elmarco is able to take advantage of the powerful piping and tubing functionality in Inventor software, which helps pipe runs comply with design standards. Streamlining the process further, models of purchased components can be easily imported into Inventor to complete the final assembly. Because the Autodesk solution for Digital Prototyping employs a single digital model through all stages of production, it allows Elmarco to use Inventor software's visualization tools to give demonstrations of the machine to customers, decreasing review times and improving Elmarco customers' understanding of the design.

### About the Autodesk Inventor of the Month Program

Each month, Autodesk selects an Inventor of the Month from the more than 700,000 users of Autodesk Inventor software, the foundation for Digital Prototyping. Winners are chosen for engineering excellence and groundbreaking innovation. For more information about Autodesk Inventor of the Month, contact us at [IOM@autodesk.com](mailto:IOM@autodesk.com).

### About Elmarco Ltd.

Elmarco Ltd. is a leading producer of high-tech solutions for the nanofiber industry. Founded in 2000, Elmarco is headquartered in the Czech Republic and has annual revenues of US\$23.3 million. For more information about Elmarco, visit [www.elmarco.com](http://www.elmarco.com).

### About Autodesk

Autodesk, Inc., is the world leader in 2D and 3D design software for the manufacturing, construction, and media and entertainment markets. Since its introduction of AutoCAD software in 1982, Autodesk has developed the broadest portfolio of state-of-the-art Digital Prototyping solutions to help customers experience their ideas before they are built. Fortune 1000 companies rely on Autodesk for the tools to visualize, simulate and analyze real-world performance early in the design process to save time and money, enhance quality and foster innovation. For additional information about Autodesk, visit [www.autodesk.com](http://www.autodesk.com).

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