

Inprentus Diffraction Gratings Continue to Grow a Global Presence

Inprentus continues to serve critical global customers on 5 continents.

CHAMPAIGN, IL, UNITED STATES, June 10, 2025 /EINPresswire.com/ --

[Inprentus](#) was founded in 2012 by University of Illinois Physics Professor Peter Abbamonte to commercialize a novel method for producing blazed mechanically-ruled diffraction gratings. Diffraction gratings are used in a variety of optical applications, essentially acting as a prism to tune light into its wavelength components. Professor Abbamonte proposed a novel manufacturing method that would allow for highly precise gratings produced in a repeatable method.



Inprentus continues to serve critical global customers on 5 continents

“

Inprentus is proud of our history of advancing US technology and manufacturing job growth. We will continue to be the world leader in blazed high precision diffractive optics”

*Jeff MacDonald, Inprentus
CEO*

Inprentus was originally awarded a Small Business Innovation Research (SBIR) grant, as part of the US government’s commitment to investing in small business innovation and to demonstrate support for US technological advancements and commercialization efforts. This SBIR grant was crucial for Inprentus to develop its groundbreaking technology and production infrastructure, foster partnerships for testing and refinement, attract private sector investments, and to ultimately successfully commercialize a novel [diffraction grating](#) production method.

“The SBIR Program is critical to technology companies like Inprentus because it allows small businesses access to research dollars,” explained Inprentus founder Peter Abbamonte. “Through this SBIR investment, Inprentus’ original R&D efforts have strengthened US technological expertise, bolstered the manufacturing economy, and contributed to Midwest manufacturing job

growth.”

Today, Inprentus maintains an 11,000 square-foot production facility in the heart of the Midwest, employing a unique blend of scientists, engineers, technicians, and support staff dedicated to executing the company's vision. Inprentus' blazed gratings are distinguished by advanced features such as their wide range of blaze angles, variable line spacing, high resolving power, line densities up to 6000 l/mm, high damage threshold, and flexible sizing.



Since its inception, Inprentus has served the mission of the SBIR by selling their ground-breaking diffraction gratings to a multitude of international government research facilities on 5 continents. In the United States, Inprentus has delivered to facilities including the Advanced Light Source Berkeley (11 gratings), Brookhaven National Laboratory (5 gratings), Stanford Linear Accelerator (7 gratings), Argonne National Laboratory (1 grating). In Europe, [customers](#) include the Paul Scherrer Institute Switzerland (1 grating), European Xray Free Electron Laser Germany (3 gratings), and Laboratorio de Luz de Sincrotron Spain (6 gratings). In South America, Inprentus has delivered 4 gratings to the Laboratorio Nacional de Luz Sincrotron. In Asia, customers include Pohang National Accelerator in Korea (1 grating), Shanghai Xray Free Electron Laser (1 grating), SHINE Shanghai (1 grating), National Synchrotron Radiation Laboratory (3 gratings), Shanghai Synchrotron Radiation Facility (3 gratings), and Synchrotron Light in Tohoku Japan (2 gratings). In addition, Inprentus has served private sector customers in Augmented Reality, EUV, DUV, and Spectroscopy markets in Australia, the UK, Austria, Slovakia, and Japan.

“Although we also serve a domestic market, we would not be able to grow our business without the increasing demand from our international customers. Orders from our international partners have helped to sustain our business and allowed us to refine and perfect our technology through the marketplace” explained Subha Kumar, Inprentus’ COO. “Unfortunately, retaliatory tariffs threaten to negatively affect our business, due to our reliance on an international customer base”.

“Inprentus is proud of our history of advancing US technology and manufacturing job growth. We will continue to be the world leader in blazed high precision diffractive optics” say Jeff MacDonald, Inprentus interim CEO. “Common sense trade policy will help companies like Inprentus continue to dominate world markets”

Inprentus Inc.

Inprentus was founded in June 2012 by University of Illinois Urbana-Champaign physics professor Peter Abbamonte to commercialize an innovative, dual-atomic microscope scribing

technology, which is a technique for carrying out nano-scale lithography via mechanical deformation of metallic surfaces. This technology is a general purpose approach to high-precision patterning of surfaces, and is particularly suited diffractive optics in which features must be shaped with 0.1-degree angular precision and positioned with nanometer precision over distances of tens of centimeters.

Inprentus aims to apply 21st century mechanical ruling to solve critical current and future grating-centered challenges. We are committed to excellence, risk, and pushing boundaries by providing state of the art blazed gratings that perform to unprecedented specifications and that enable novel applications. Outcomes include next-generation monochromators, spectrometers, laser systems, and analytical instrumentation in defense applications, as well as ground-breaking consumer experiences enabled by improvements in chip manufacturing and see-through AR waveguides. Inprentus is dedicated to facilitating next-level science and technology by continually enhancing our capabilities with cutting-edge developments, collaborations, and partnerships.

Cynthia Ottemann

Inprentus, Inc

+1 2174930905

[email us here](#)

Visit us on social media:

[LinkedIn](#)

[Facebook](#)

[X](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/820492887>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.