

Trexel and Teratonics announce exclusive distribution agreement for Teratonics's STRIPP Control IM solution for injection molded plastics

- Trexel exclusively distributes Teratonics's STRIPP Control IM testing solutions in the plastic injection molding market under the TrexelVISION brand name globally
- TrexelVISION allows 100% non-destructive in-line production control of injection molded parts
- Fast, non-ionizing, and contactless analysis of inner part structure

(Siegen, October 18, 2018) – Trexel and Teratonics announce an exclusive distribution agreement for Teratonics's non-destructive testing solutions dedicated to the plastic injection molding market. Marketed by Trexel under the brand TrexelVISION, the breakthrough technology allows for the first time in-line dimensional control and internal defect detection of plastic molded objects.

Worldwide partnership for distribution

"TrexelVISION is a natural fit within Trexel's product portfolio. Our customers have a strong desire to see inside the parts they are producing with our foaming technology, and TrexelVISION brings a powerful solution to the market" says Brian Bechard, CEO & President of Trexel Inc., "as it opens a precise and fast in-line control opportunity." This cooperation underlines Trexel's approach to grow as the market leader in high tech foaming solutions in the injection molding business. "Teratonics benefits from Trexel's long term market approach in high tech process equipment and experienced sales and service structures." explains Dr. Uli Schmidhammer, CEO & President of Teratonics.

Fast, simple and accurate non-destructive testing

TrexelVISION is based on Teratonics's internationally patented ultrafast terahertz technology for contactless non-hazardous in-line Non-Destructive Testing (NDT). TrexelVISION provides a solution for the production and process control in the most demanding smart manufacturing plastic industrial plants. TrexelVISION can perform dimensional measurements, like wall thickness measurement with micrometric precision, and detect internal defects such as bubbles, metallic foreign bodies, plastic inclusions, density variations, thickness variations, or surface cavities (hammer blows) in injection molded compact and foamed plastic parts.

New approach to interior inspection of injection molded parts – both foamed and compact

Trexel's comprehensive foaming competence is based on long term experience of foaming injection molded parts. Due to pressure and temperature variations during filling, those parts sometimes show local variation in cell size and cell density. Until today, analysis of inner structures was possible only off-line, often with destructive testing or elaborate and hazardous methods. TrexelVISION allows a 100% in-line part structure analysis of trials or production and makes it easy to evaluate process stability. Additionally, this analysis can be used in solid molding to detect inner structure variations of fillers, voids or others which usually are not visible. TrexelVISION in-line checks also allow the detection of inner structure variations related to different process parameters and the wall thickness control. This helps to

define allowed process tolerances. TrexelVISION will also prove highly beneficial in insert-molded applications, as the precise location of inserted objects can be determined using the technology.

TrexelVISION in-line or off-line functionality

The TrexelVISION system integrates a broadband source and detection system for the 0.1 – 1 THz spectral range in which many common polymer materials exhibit low or medium absorbance. On top of our breakthrough terahertz hardware, TrexelVISION includes an industrial control and acquisition unit with proprietary software for the scan motion and for data processing of the multitude of complementary information of the pulsed THz measurement. The system allows fast robotized scanning of 3 dimensional objects based on their CAD files. The communication can be adapted to many of the common robot types that are used in injection molding factories – including state of the art cobots. In consequence, the in-line control can often be directly realized at the exit of the molding machine with an already existing extraction robot.

Photos:



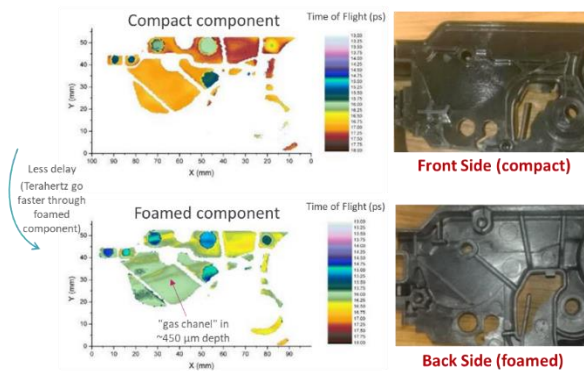
Picture 1: 2018-010_TrexelVISION.jpg

Enclosure – Martin Jacobi (Sales Manager, Trexel GmbH), Dr. Uli Schmidhammer (CEO & President of Teratonics) and Brian Bechard (CEO & President of Trexel Inc) announce exclusive distribution agreement (left to right)



Picture 2: 2018-011_TrexelVISION.png

Enclosure – TrexelVISION sensor head for fast high definition part structure analysis



Picture 3: 2018-012_TrexelVISION.png

Enclosure – TrexelVISION quickly detects inner part structures in 3D with high definition for comprehensive analysis and quality check.

For more information visit:

Fakuma 2018 – hall A4-4007

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About Teratonics

Teratonics provides Non-Destructive Testing solutions and services for the smart factory. Teratonics's patented terahertz technology performs contactless, harmless, and easy dimensional measurement and defect detection inside plastics, composites, assemblies and coatings. Teratonics system solutions are suitable for 100% in-line testing to ensure and control production quality. Teratonics has been identified as a European high potential deep tech start-up by the European program www.deeptechforgood.eu. Teratonics is headquartered in Orsay, Paris-Saclay (France).

About Trexel

Trexel is in the business of providing technology which places tiny cells of gas in plastic parts, and our passion is manifested in the broader benefits that these micro bubbles can deliver. Our microcellular foaming technology reduces production cost while increasing environmental sustainability. We make it possible for designers to break some of the rules of thermoplastic part design, resulting in design for function instead of design for manufacturability. Our technology enables lighter, more dimensionally stable products which can be produced faster on smaller, more energy efficient equipment. Since 1995 we have been applying our technology to thousands of applications in dozens of industries. We have developed unsurpassed know-how, continuously improved our technology and enhanced our services, growing into the global leader in microcellular foaming technology we are today. We deliver systems for physical foaming injection molding, chemical foaming agents and provide extensive technical advice up to complete handling of engineering projects. Mold trials, services and education or training activities complete our activities.