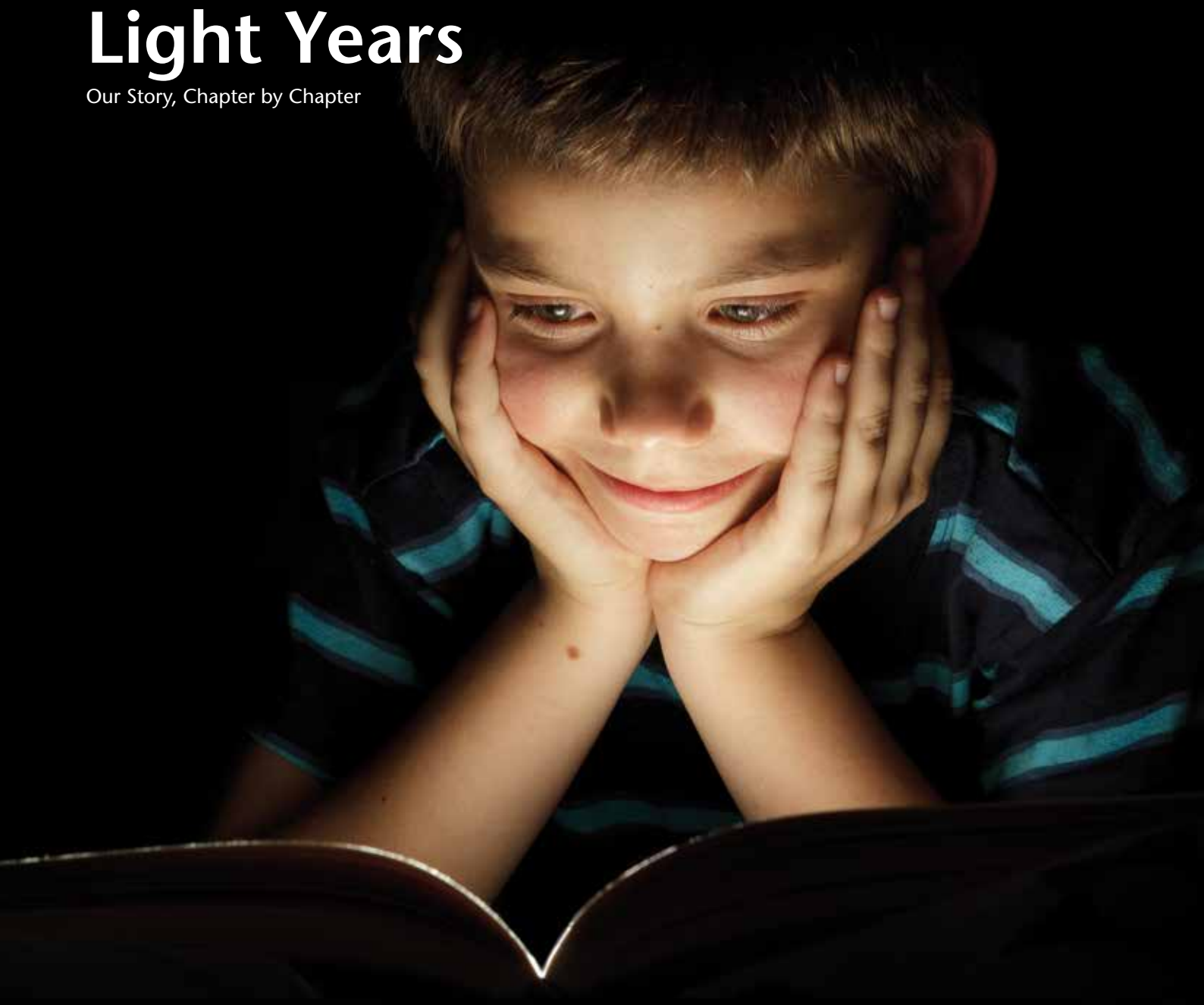


Light Years

Our Story, Chapter by Chapter





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We live Light

Polytec, with over 350 employees worldwide, has more than 40 years of experience developing, producing, and distributing optical measurement systems for industry and research. Our innovative products enjoy an excellent reputation in the marketplace and we continue to create customer-oriented solutions to meet their challenges with every passing day.

Our know-how is in demand in a number of areas; whether it is in the field of space travel, medicine, nanotechnology, or mechanical engineering, measurement solutions from Polytec help our customers establish, retain and expand their positions as market leaders. When it comes to measuring sensitive manufacturing processes, products, or procedures, users have come to trust and depend on our products.

Customer satisfaction is our highest priority. To help accomplish this, we have locations around the globe. No matter where our products are in operation, users can rely on first-class support. Our convenient on-site service guarantees dependable measurement results with minimal downtime and helps maintain the growth and competitiveness of our clients.

»Technological progress depends on having dependable, high performing tools. It makes me proud that we offer the right tools for so many industries.«

Dr. Dietmar Gnaß

»Behind our internationally renowned measuring instruments stand people, who are highly motivated, deal honestly, and are team oriented. Our employees are our most important asset.«

Alfred Link



Polytec



Pioneers of Laser-based Technology

The physicist Heinz G. Lossau discovered early on the potential role of lasers in measurement technology. He founded Polytec in 1967, shortly after lasers became commercially viable, to become the first supplier of this technology in Germany.

This method of contactless measurement quickly opened the doors to many new opportunities.

With these in mind, Lossau created an in-house development division shortly after the company's founding and Polytec soon introduced the first German-made infrared optical Fourier spectrometer. Development of Polytec's first laser vibrometer followed shortly thereafter, a product line that has remained highly successful to this day.

First-class customer service and consulting, the development and production of innovative measuring systems, and the sale and distribution of products from renowned international manufacturers have always been core pillars upon which our company has stood.

The World vibrates

Modern laser technology reveals even the smallest vibrations and allows them to be measured in great detail. Whether you are listening to music in the car, storing information on a hard-drive, or watching a Formula 1 race, Polytec's laser vibrometers have very likely played their part sensing those vibrations, allowing them to be modified or eradicated, or to validate finite element models used in their development. As a result, aircraft are safer, data storage devices perform better, and cars have become quieter and more efficient. Vibrometers are also indispensable in pure research fields and enable groundbreaking discoveries in, for example, biology and medicine. Our vibrometers are used on a vast range of applications from studying the dynamics of microsystems or MEMS devices to the condition monitoring of road and rail bridges. Our precision instruments make these measurements quickly, with the highest accuracy, and no physical contact. We are specialists in the fields of optical measurement and are simultaneously the worldwide market leader in contactless vibration measurement. Polytec's laser vibrometers continue to have an international reputation for quality and are recognized as the standard tool for reliably accurate non-contact vibration detection and measurement.





At Home in Extremes

Our laser surface velocimeters enable contactless measurement of length and speed in every imaginable area. Whether it is in an intensely hot steel plant or some other extreme production environment, they deliver precise and dependable measurements of a material's length and velocity, where traditional sensors would fail. The areas where they are used are just as numerous as the applications for which they are required. In steel production, our velocimeters are utilized in almost every step of production; from casting to shaping and on to the control of the final cut length, they guarantee the utmost precision throughout. Further applications are found in the fields of plastics manufacturing, textiles, paper, cable, and wire, to name just a few. In every application, our velocimeters are easy to install and configure, and enable the simple and close control of processes that require a high degree of accuracy and dependability.

Focusing on Surfaces

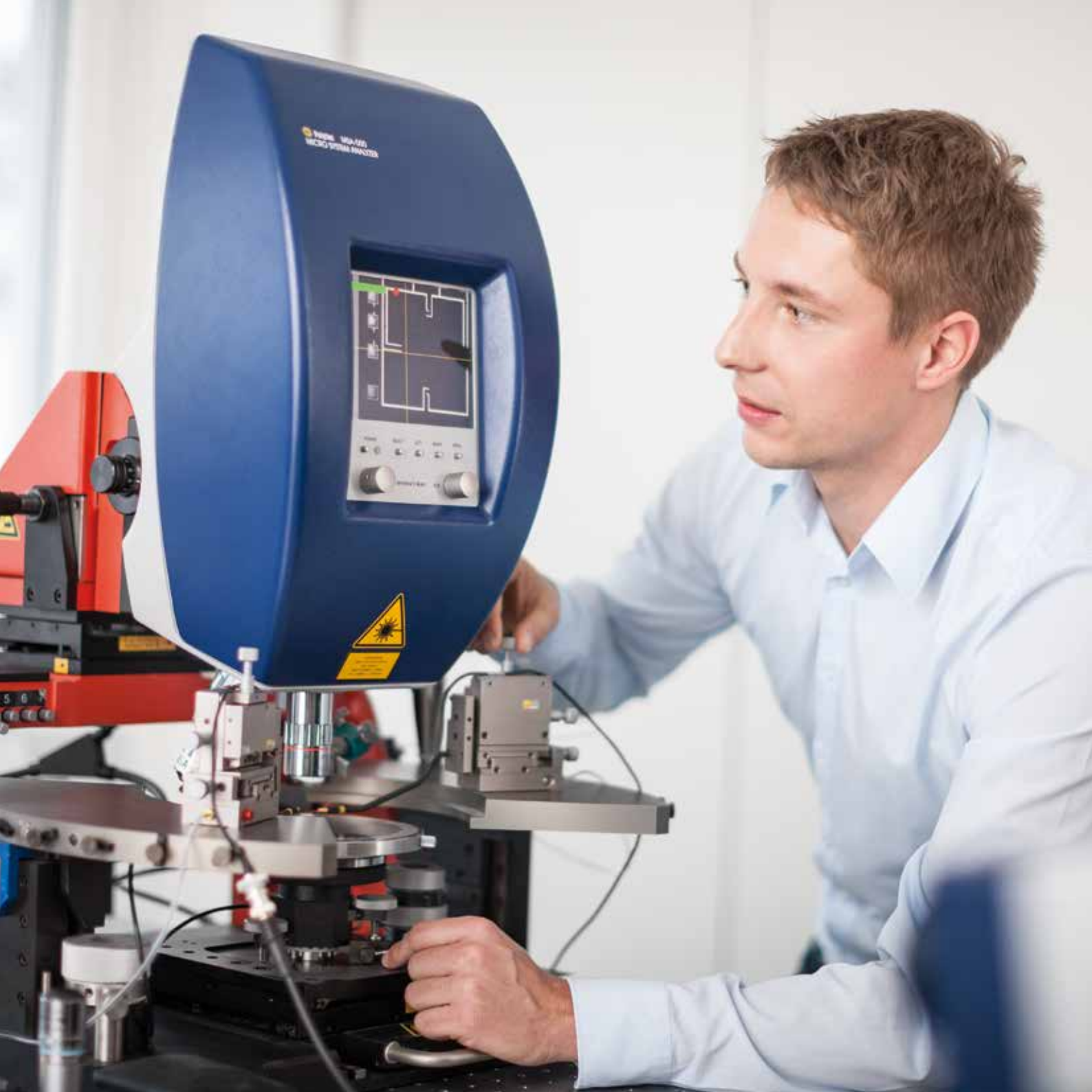
An accurately produced surface that meets specification requirements ensures the quality and correct function of a product. Our topography measuring instruments check the height, degree of levelness, and the structure of surfaces

as well as their degree of parallelism, regardless of how soft the material may be or if the test is taking place in a harsh production environment.

Our measuring devices can map the three dimensional profile of surfaces in various fields of application, without regard to whether they are uneven, smooth, or layered. Examples of these include complying with geometrical requirements in computer chip production and the manufacture of precision components in the automotive industry. Thanks to their large height measurement range combined with a resolution specified in nanometers, our non-contact instruments are ideal for a variety of demanding tasks. In contrast with traditional methods, which must touch the surface being measured, our white light interferometers operate quickly, without disruption, and make a lasting contribution to quality in the final assembly process.

»Our instruments are ideal for use in a large number of applications; this variety is exactly what makes being a sales engineer at Polytec so interesting.«

Marco Fritzsche



TRUMPF MDA-100
MICRO SYSTEM MASTER



POWER ON OFF
START STOP
RESET





At the Forefront of Process

Our automated spectrometer systems improve the supervision of production processes, making them faster and more precise, while being more efficient and cost-effective than laboratory analysis.

Process analysis is used in nearly every field and stage of production today. This includes the initial inspection of materials, final assembly, and follow-up inspections. Whether it's the qualitative and quantitative analysis of ingredients or the measurement of particle size and layer thicknesses, contactless measurement excels at completely monitoring output directly at the production level. Indeed, the sizes of the objects being measured are just as numerous as the industry branches in which they are found.

Spectrometer systems are customizable for each and every need simply through selection of the system components; this flexibility is particularly important, since each production process places its own demands on measuring devices.

Light is our Element

Our passion for light connects us with partners around the world. Starting immediately after the company's founding, we began establishing connections with international manufacturers of photonic technologies in order to distribute their

products into the German and European markets.

Our areas of competence include industrial photo processing, lasers, optical radiation measurement, spectroscopy, electro-optical test systems, optical telecommunications, fiber-optic sensors, photovoltaic and semiconductor measurement, as well as optoelectronic components.

Thanks to our many years of experience, we speak the language of our customers and – as a manufacturer – we understand the needs of our partners. This, in turn, builds the foundation for both cooperation and long-term customer support.

»It's fascinating, just how many ways there are in which light can be used. That's what makes working at Polytec so exciting – no two days are the same.«

Melanie Schäfer





Blazing new Trails

What further possibilities will light provide for us in the future world of measurement systems? More than 60 physicists and engineers are currently working on those answers in our research and development department. Due to

continual investment and cooperation with renowned institutions, Polytec remains a pioneer in the field of laser-based and optical measurement.

Particular points of emphasis in our research and development are laser vibrometry and velocimetry, spectrometry, and surface metrology measurement. Our employees are continually innovating and exploring unique and exciting ideas for even better contact-less sensors.

In order to gain new perspectives and inspiration, university students and graduates of optics, electronics, and software programs regularly work with us when writing their bachelor's/master's theses and internship reports.

We believe in supporting the ideals of intellectual exchange by participating in numerous national and international research projects as well as scientific networks. We are also partnered with many universities and institutes, and are members of numerous scientific research associations.

»It inspires me to know
that our measuring devices
empower others.«

Dennis Berft

The Quest for Perfection

Production began in Waldbronn in 1973. Since then, we have manufactured all Polytec devices and systems at the same location. We either produce the individual components ourselves or entrust this task to long-term partners.

Our qualified team of specialists guarantees consistent high quality – this is how we ensure the longevity and dependability of our products. Unique customer wishes, including complete systems and custom modifications, can be tackled with ease.

A DIN EN ISO 9001:2008 certified quality management system has been in place since 1994. In order to fulfil the high standards needed for this certification, our products must meet the strictest parameters both during manufacturing and calibration.

»When it comes to milling and working on a lathe, precision is absolutely essential – that's what inspires me to do my best. Now after being a decade here at Polytec, I'm completely certain: I couldn't imagine a better place to work.«

Gerd Bachmann





Global Experts

Our presence reaches every corner of the world. An international network of locations and service partners in Europe, North America, and Asia ensures that we are always close to our customers, allowing us to offer first-class service and local support. In fact, this close contact with end users provides useful feedback and ideas, which find their way into the development of new products.

We are always seeking to engage our customers in useful dialogue at international trade fairs and conferences while simultaneously exposing Polytec products to a broader audience.

»Extraordinary products require extraordinary ideas; the fact that we can bring these into existence is simply amazing.«

Nesime Dinç

Assisting our Customers

Engineering services and system rentals round out our portfolio of offerings. We can measure vibrations, topography, length, and speed.

Quite often, the easiest and simplest solution for a measuring task is to let us do it for you.

Our experienced applications engineers and industrial robots make short work of even the most time-critical measurements. We offer spectroscopy measurements, wafer measurements for the photovoltaic and semiconductor industries, high-speed recording, and tests for photonic sintering processes.

Our service personnel calibrate vibrometers quickly and efficiently, so that an accurate reading can always be achieved. Calibrations are based on national and international standards, while also conforming to ISO/IEC 17025. In fact, the performance of our digital vibrometers is so exact that national meteorological institutes, such as the Federal Institute of Physical and Technical Affairs in Germany, use them as references in their own primary calibration systems.

Measurement systems from Polytec are low maintenance, so repairs are rarely necessary. However, in isolated cases when repairs must be made, experienced service personnel will carry them out in close cooperation with our development and manufacturing departments. We can also minimize our customers' downtime by calibrating products made by our partners.





Supporting Education

Our highly qualified and motivated employees working in assembly, development, sales and distribution strive for one thing alone – the satisfaction of our customers.

Our common goal remains simple: to further develop the state of the art in optical measurement, to find future-oriented solutions, and to create innovative products for our customers. To this end, we consider good working conditions for our employees to be of the utmost importance. Routine personal development of our workforce has a special meaning for us here at Polytec.

Always seeking to attract new talent, we offer a wealth of possibilities for research such as: vibration measurement, 3D surface mapping, and spectroscopy. As a Chamber of Commerce-recognized facility, we also train mechatronic engineers and industrial sales people.

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»My training as an industrial sales woman at Polytec is exciting and multifaceted. Starting right at the beginning, I was able to take part in projects from several different areas.«

Lara Weber

Looking toward the Future

ment and application of new technologies. It has also allowed our assembly area to move into the new facility together with the associated machinery and operate with maximum efficiency.

Laboratories and demonstration facilities will be able to offer our customers an even wider spectrum of possibilities. This investment in our facilities further solidifies Polytec's market-leading position, providing enough room for continued growth in the number of employees, preparing us to meet future challenges in the field of measurement technology.

Innovative ideas need room to grow. In light of this, we have further expanded our already modern and efficient facilities in Waldbronn. In addition to the advanced RoboVib Test-Center, the new complex provides expanded space for the develop-



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 **Polytec GmbH**
Polytec-Platz 1-7
76337 Waldbronn
Tel. +49 7243 604-0
info@polytec.de

Polytec GmbH
Vertriebs- und
Beratungsbüro Berlin
Schwarzschildstraße 1
12489 Berlin
Tel. +49 30 6392-5140

 **Polytec France S.A.S.**
TECHNOSUD II
Bâtiment A
99, Rue Pierre Semard
92320 CHATILLON
Tel. +33 1 496569-00
info@polytec.fr

 **Polytec Ltd. (Great Britain)**
Lambda House
Batford Mill
Harpenden, Herts AL5 5BZ
Tel. +44 1582 711670
info@polytec-ltd.co.uk

 **Polytec Japan**
Arena Tower, 13th floor
3-1-9, Shinyokohama
Kohoku-ku, Yokohama-shi
Kanagawa 222-0033
Tel. +81 45 478-6980
info@polytec.co.jp

 **Polytec, Inc. (USA)**
North American Headquarters
16400 Bake Parkway
Suites 150 & 200
Irvine, CA 92618
Tel. +1 949 943-3033
info@polytec.com

Central Office
1046 Baker Road
Dexter, MI 48130
Tel. +1 734 253-9428

East Coast Office
25 South Street, Suite A
Hopkinton, MA 01748
Tel. +1 508 417-1040

 **Polytec South-East Asia Pte Ltd**
Blk 4010 Ang Mo Kio Ave 10
#06-06 TechPlace 1
Singapore 569626
Tel. +65 64510886
info@polytec-sea.com

