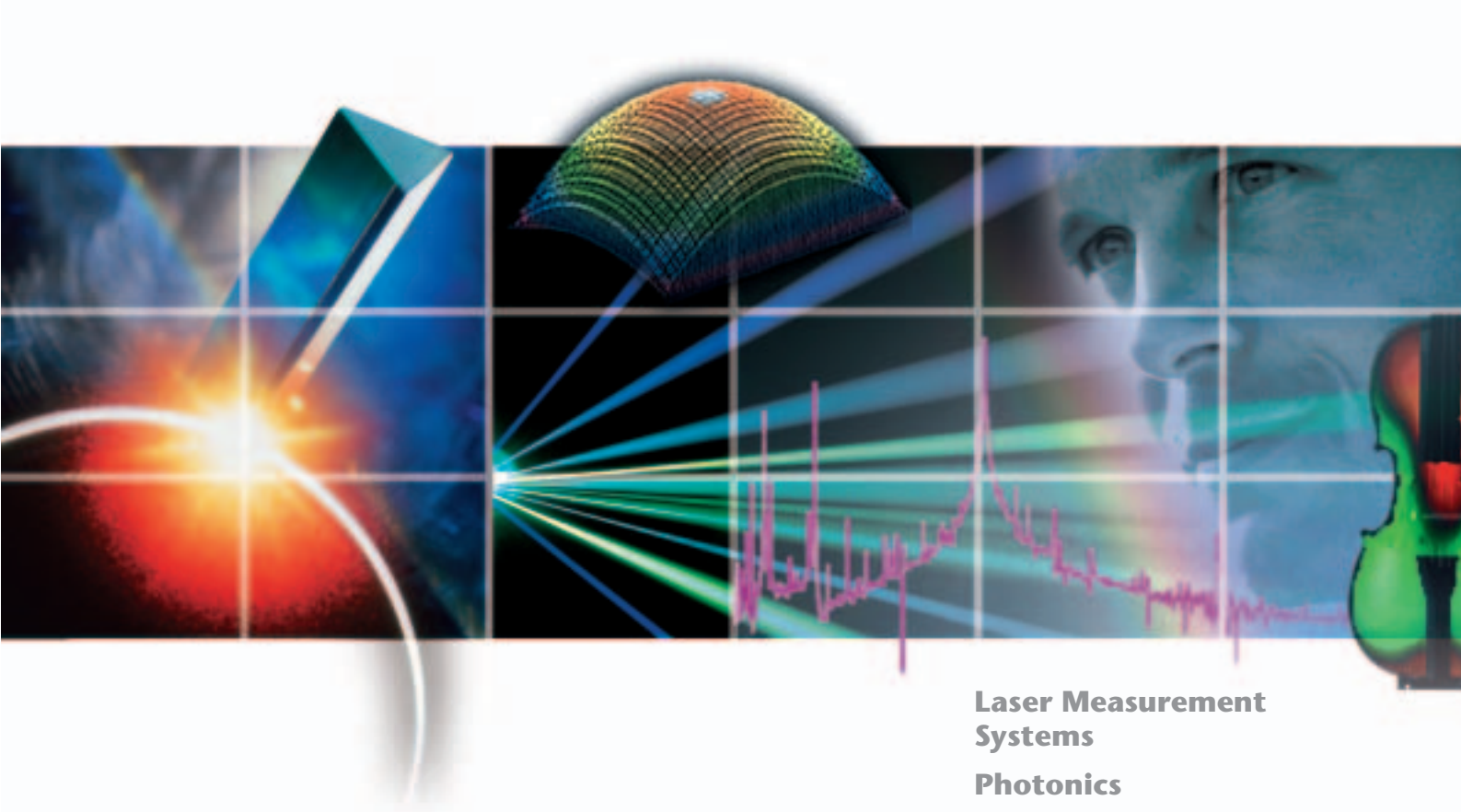
Polytec

Product Overview 2002/2003



Laser Measurement Systems

Photonics

Spectral Technologies

Electronic Packaging

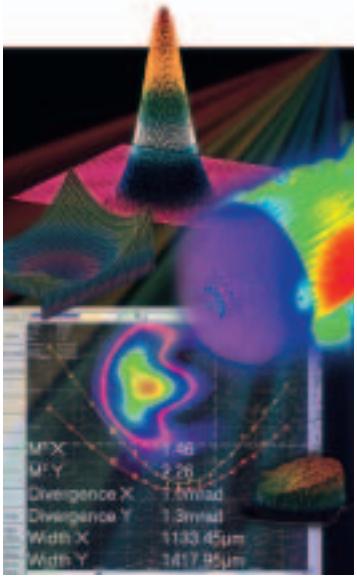
Advancing Measurements by Light

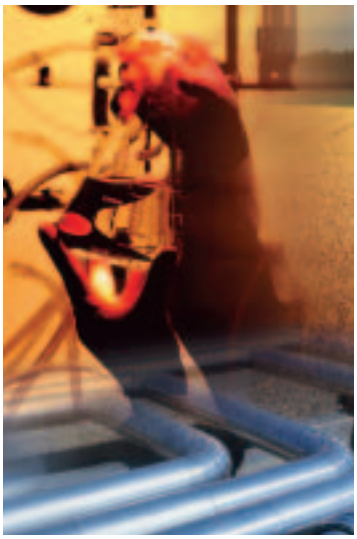
Experience

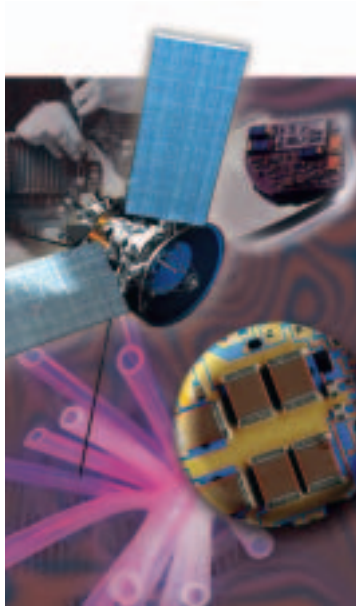
The success of Polytec is based on the quality of our people. From engineering/design to sales and application support to administration, our professionals provide in depth knowledge and experience to assist you in determining the best solution for your particular application.

Service & Support

Our professional service and support staff is available to assist you from first contact to final project sign off. Technical assistance, application support, training, calibration and repair services are all available by phone, on-site or at Polytec.







Application Knowledge

The focus of Polytec is to offer unique, non-contact, optical measuring systems and solutions by applying new and innovative optical technologies and techniques. With over 30 years of experience, we have developed a wide range of products and application solutions by working closely with customers to understand their specific needs and applications requirements. We welcome the opportunity to discuss our product and application solutions with you in greater detail to determine if they might meet your particular requirements.

Quality

Polytec has been certified as a DIN EN ISO 9001 supplier since 1994. Our products meet strict manufacturing and calibration guidelines to insure the highest quality while extensive design and testing insure long term product reliability. In fact, some of our products are used as the standard for vibration measurements at various national labs around the world. You are welcome to visit Polytec to learn more about our manufacturing, testing and calibration processes.

Workshops, Seminars, Training Courses

Polytec offers workshops, seminars and training sessions on-site or at local Polytec offices. These programs range from a general introduction and application of the technology to programs tailored specifically to meet the needs of a particular customer. In addition, our Users Meetings offer customers a unique opportunity to meet and discuss products, applications and solutions with others from various industries and technical fields.

Consulting

From the initial contact to process integration, to the final sign off Polytec product specialists are available to discuss, advise and consult on the application of our products for your specific requirements. We offer equipment demonstrations at Polytec or at the customer site, on line or in the lab to verify the performance of our systems for your particular application. Please feel free to call your local Polytec office to discuss your particular application requirements.

In 1967, Polytec was the first German company to introduce laser technology from the USA to Germany. Since that time, through our own investment in R&D and collaboration with research institutes, Polytec has continued to be on the forefront of developing laser and optical measurement technologies for many applications in the fields of test and measurement, medicine and material processing.

Polytec, now a worldwide corporation, continues to maintain its tradition of research, development and application of leading edge optical technologies.
The result: unique and innovative ideas that lead to world class non-contact measurement products.

As a global company Polytec maintains branches and subsidiaries at 15 locations in six countries, including the USA, Japan, France and the UK. Our two main areas of business are to develop and manufacture high quality, high precision, non-contact, optical measurement systems, representing the forefront of technology in their respective fields and to distribute innovative optical measurement technologies (components, sensors, systems) from leading international manufacturers.

At Polytec, we believe our success is based, not only in our ability to develop and manufacture high quality, high precision instrumentation through the quality of our people, but also on our ability to understand the needs and requirements of our customers in order to provide the most effective application solutions.

Laser Measurement Systems

Laser Vibrometer

Non-contact Vibration Measurement Technology

- Single point vibrometer for all surfaces
- Fiber-optic vibrometers for objects with difficult access
- Robust vibrometers for harsh industrial environments
- Battery-operated vibrometers for mobile use
- HF vibrometer for ultrasonic vibrations
- Scanning vibrometers for full-field vibration measurements
- Rotation vibrometers for rotational vibration measurements
- Inplane vibrometers for vibrations vertical to the laser beam axis

Laser Surface Velocimeter

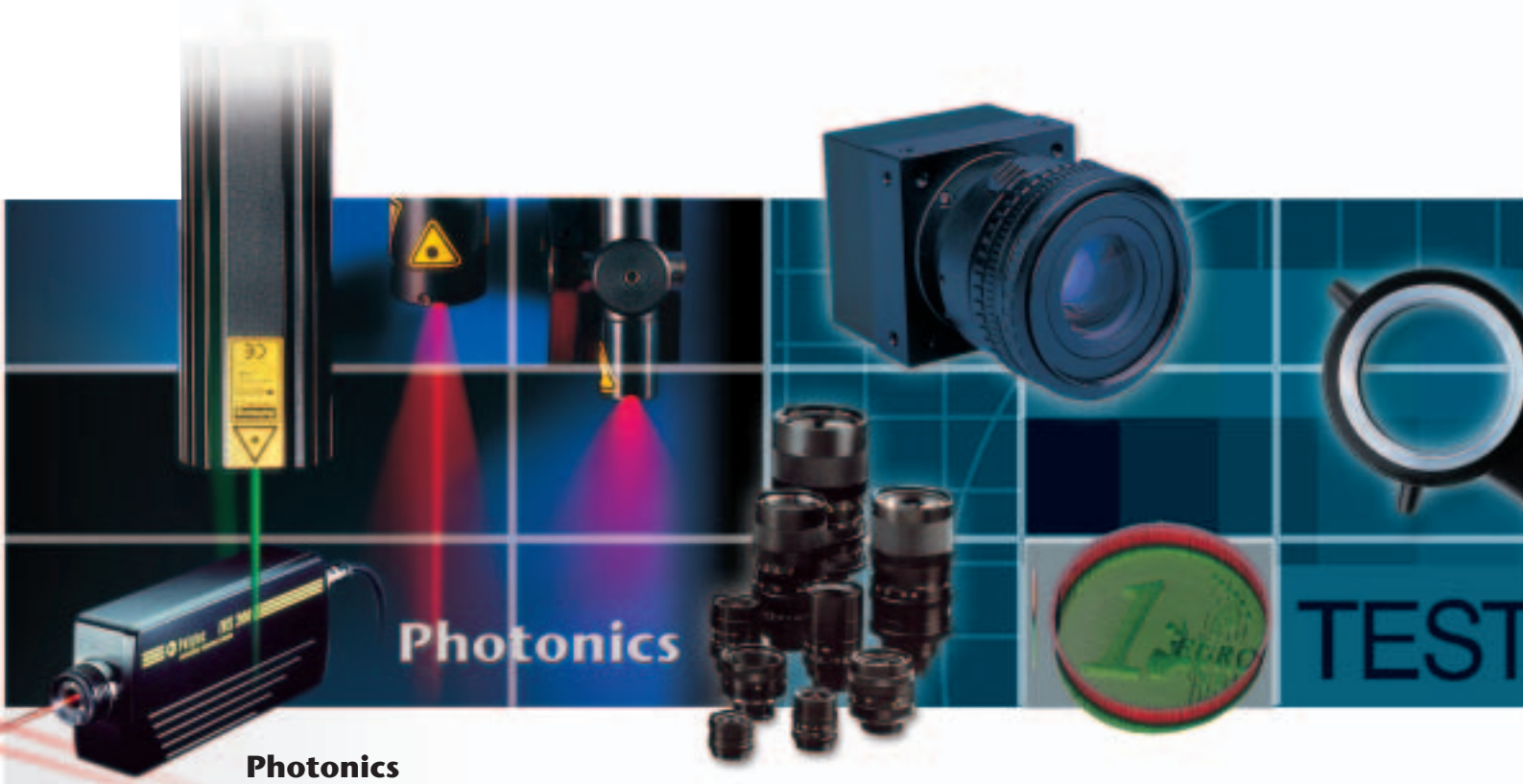
Non-contact Length and Velocity Measurement

- Laser Surface Velocimeters for roll mills and steel works and all other areas of industry, such as textiles or paper.

The Product Spectrum

The wide scope of optical technologies for

Non-contact measurement – a revolutionary, extremely efficient concept for an increasing number of applications.



Photonics

Lasers and Laser Systems

- HeNe lasers
- Diode lasers
- Line generators (also customized)
- Ion lasers
  (Ar+, Kr+, mixed gas, deep UV)
- Ti:Sapphire lasers
  (pulsed, cw, mode-locked)
- Nd:YAG lasers (pulsed, cw)
- Nd:YAG pumped dye lasers
- Diode pumped solid-state laser with frequency multiplier

Laser Material Processing

- Diode pumped high performance lasers
- Nd:YAG industrial lasers
- Laser marking systems
- DPSSLs (cw and pulsed pump mode)

Laser Beam Diagnostics

- Performance and energy measurement devices from VUV to FIR
- Laser energy monitors especially for Q-switch lasers
- Beam profile analysis for cw and pulsed lasers, from VUV to FIR
- Beam propagation analysis, M^2 determination
- Wave front analysis
- Laser diode spectrometers
- FROG systems
- IR sensor cards
- NIR viewers

NIR and IR Cameras

- Vidicon cameras from 0.4 to 2.2 µm
- InGaAs cameras up to 2.2 µm
- Pyroelectric matrix-array cameras
- Thermal imaging cameras
- Night vision modules

Optical Radiation Measurement

- Light measurement devices
- Radiometers/photometers
- UVA, UVB measurements devices
- Dosage measurement devices
- Spectroradiometers
- Calibration standards,
  for example black body radiation
- IR Measurement & Test Systems

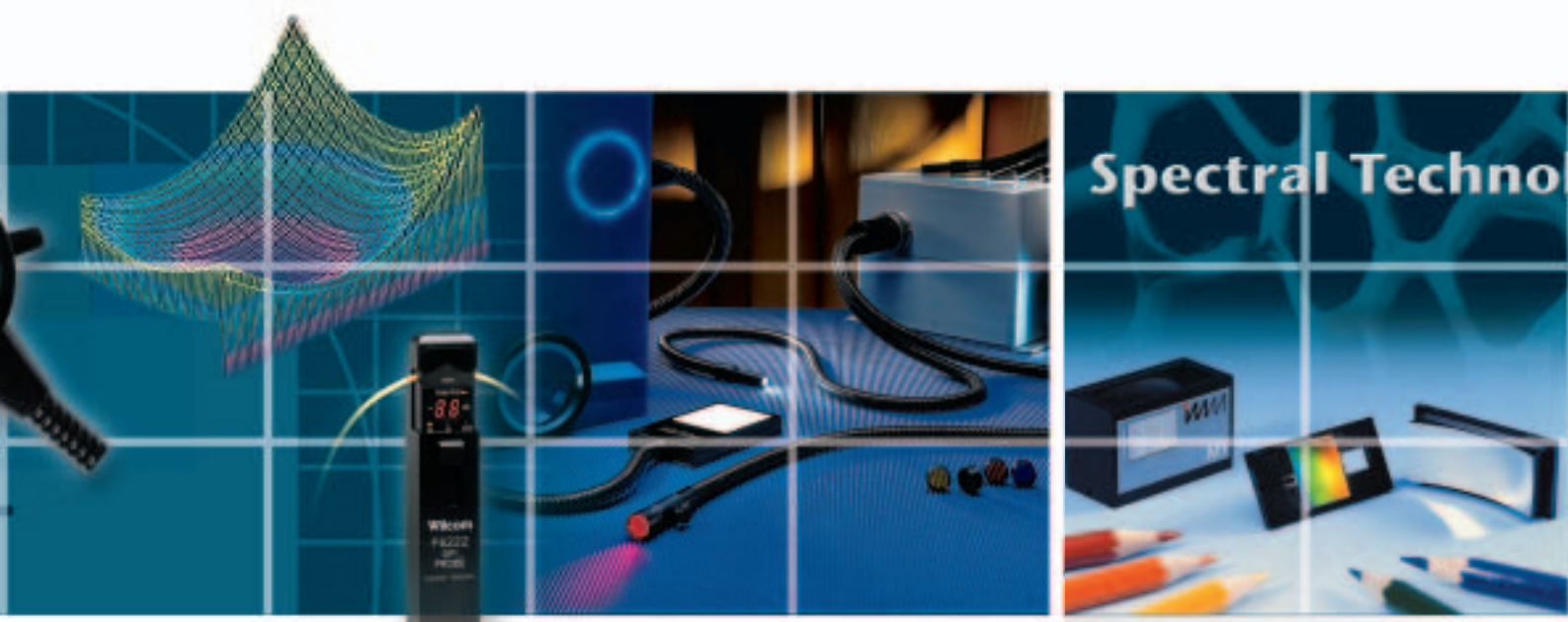
Opto-Electronic Components

- Diode laser modules
- Faraday rotators
- Electro-optic modulators
- Acousto-optic modulators
- InGaAs detectors up to 2.5 µm
- InGaAs arrays up to 2.2 µm
- InGaAs focal plane arrays
- Pyroelectric detectors

Fiber-Optic Temperature Measurement Systems

industry and research.

Trendsetting solutions for modern laboratory and process analysis.



Machine Vision

Fiber-Optic Illumination Systems

- with regulated halogene light sources, metal vapor lamps or stroboscopes

LED Illumination

- for flash and continuous light

Cameras

- Matrix cameras
- Line cameras
- 3D cameras

Lenses

Frame Grabbers

- for analog and digital cameras

Cable and Transmission Systems

Monitoring Systems

Inspection Systems

Surface Topography Measurement Systems (high-resolution)

Optical Telecommunication

- Lasers in ITU wavelengths
- Variable frequency lasers
- Optical amplifiers (Raman and EDFA)
- NIR broadband emitters
- DWDM monitors
- Optical switches and attenuators
- Fiber bragg gratings
- DWDM multiplexers/demultiplexers
- Test and measurement devices for installation and laboratories
- Stripping tools for all fibers

Spectral Technologies

Spectral Sensors

- Flexibility for high-resolution measurements
- Modules
- Plug-in units
- OEM sensors, modules and plug-in units for system integration

Spectral Systems

- Solutions for at-line operation as well as process integration
- Diode array spectrometers for UV/VIS and NIR
- NIR/FTIR spectrometers
- Process analysis (UV/VIS and NIR)
- Color measurement systems
- Film thickness measurement systems
- Photometry

Life-Science
- Fluorescence/luminescence
- Sample preparation
- Calcium imaging

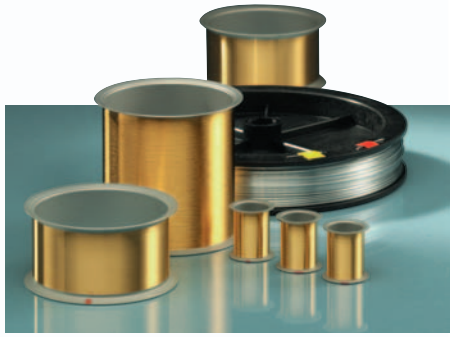
Semiconductor Measurement Technology
- Four point probes for Si and III-VI semiconductors as well as LCD plates
- CV for semiconductor wafers
- Map systems

Electronic Packaging

Special Adhesives
- Electrical and thermal conductive adhesives
- Optical adhesives
- High temperature adhesives (epoxy and silicone)
- High temperature potting materials and coatings (epoxy and ceramic)

Electronic Packaging
- Solder frames
- Heat sinks
- Bond wires
- Preforms
- Composite metals

Silicones for Medical Engineering and Aerospace Applications
- Adhesives
- Coatings
- Injection molding materials
- Dispersions
- Gels
- Silicone oils
- Primers



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Polytec Headquarters Waldbronn

...and how to find us:

Waldbronn, an attractive spa town, is favorably located in the northern edge of the Black Forest, only a few miles away from Karlsruhe, close to both the autobahns **A5** Frankfurt-Basel and **A8** Karlsruhe-Munich. 1 If you are approaching on the **A8** take **exit No. 42 „Karlsbad-Waldbronn“**. Follow the signs for Waldbronn, until you reach the **turning for Reichenbach** 2.
There you turn left into the **Stuttgarter Straße** and stay on this road until you see a small sign pointing towards **„Gewerbegebiet Oberheck“**. 3 Turn left at the small traffic island and then immediately take the first left again. Follow the Badenerstraße into the Siemensstraße. On the left you will see the Polytec buildings. The visitor parking spaces are directly in front of the blue main entrance with glass doors.

Product Overview 12/02-2000engl