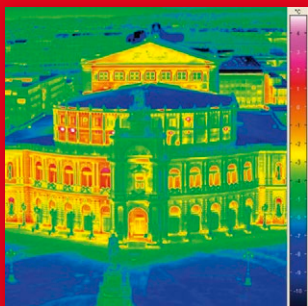
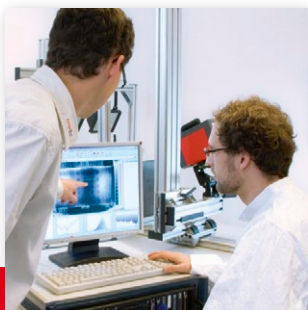


INFRAtec.

A Passion for Innovation

Your Specialist for Thermographic Measurement
Systems Introduces Itself





Managing directors:
left Dr.-Ing. Matthias Heinze
(Head of the Infrared Sensor
Division), right Dr.-Ing. Matthias
Krauß (Head of the Infrared
Measurement Division)

Dear Customers and Business Partners,

This brochure was designed to deliver you insight into our company InfraTec.

Our infrared technology belongs to the most recent ones that are worldwide currently available. We are your competent service provider within our two business areas infrared sensors and measurement technology. Our customers from around the world are supplied with our company's developed and manufactured detectors and cameras. We are specialised in automation solutions and integrated infrared technology in complex industrial processes.

Consulting and service are our top priority! We develop and manufacture infrared detectors and thermographic systems according to your demands. Furthermore, we carry out special measurements, research on behalf of you and share our knowledge in seminars.

The key of InfraTecs' success is our long experience. Since our foundation in 1991, our company developed into an internationally well-known and greatly demanded high-tech expert. We are independent, managed by our company's founders and

owners. With our subsidiaries in Great Britain and in the USA as well as with more than 40 international distribution partners, we operate globally and are close to our customers.

In the financial year of 2020 a turnover over 40 million euros has been generated by our 230 employees. This success is also due to you, our partners and customers!

*See it for yourself! Get to know InfraTec and experience the high quality of our products and our service. Enjoy reading!
Yours sincerely,*

Dr.-Ing. Matthias Krauß
Managing Director InfraTec GmbH,
Infrarotsensorik und Messtechnik

Our Two Most Excellent Areas

As Europe's leading specialist for infrared sensors and infrared measurement technology, we develop, manufacture and distribute sensor components and camera systems in business divisions of the same name.

High-precision Sensor Technology for Your Devices

In a clean room area of more than 1,500 m², high-quality components are manufactured in the infrared sensor technology business unit specifically according to your requirements. We produce infrared detectors as prototypes, in small series as well as in large quantities. Starting from more than 50 basic types, almost every requirement of our customers can be realised.

World's leading manufacturers integrate our infrared detectors in their systems. These come into operation in respect of flame sensor technology as well as in the area of gas analysis, spectroscopy and non-contact temperature measurement.

Infrared Measurement Technology for All Applications

Our business area of infrared measurement technology is your reliable partner in all application fields of thermography. Providing more than 30 different camera systems, we realise solutions for each thermographic measurement task.

You Will be Surprised by Our Product's Variety:

- Thermography-based OEM solutions for industry
- Thermal cameras customised for universal use
- High-end systems for highest demands
- Thermography automation solutions for continuous industrial operation
- User-specific, intuitive software solutions

Important Stages of Company History

- | | | | |
|------|--|------|--|
| 1991 | Foundation of InfraTec; IR multi channel detectors are already available on demand | 2009 | Introduction of the second generation of high-end camera series ImagerIR®; Supply of the worldwide first fully automated infrared system for spot weld testing to Daimler AG |
| 1992 | Development and successive distribution of the NIR high temperature thermographic camera HotCAM | 2010 | The thermography software IRBIS® 3 was test winner in a comparative test of different thermography software products, InfraTec employs more than 150 people |
| 1993 | Market launch of the first mobile VARIOSCAN based on a scanning system with a resolution of (300 × 200) IR pixels | 2011 | InfraTec celebrates its 20 th anniversary on 1 st July together with 260 business partners, customers and employees |
| 1994 | First completed assembly line for pyroelectric detectors | 2012 | Product launch of the VarioCAM® High Definition with (1,024 × 768) IR pixels and ImagerIR® 9300 mit (1,280 × 1,024) IR pixels |
| 1995 | Global distribution of our own automation solutions | 2013 | The high-speed thermal imager ImagerIR® 8300 high performance allows a full frame image rate of 355 Hz for the first time |
| 1996 | First thermographic automation solution WASTE-SCAN for early fire detection | 2014 | The thermal imaging cameras with super zoom lens and HD resolution, ImagerIR® 8300/9300 Z, are placed on the market |
| 1997 | Introduction of the second generation of VARIOSCAN; InfraTec exclusively represents JENOPTIK thermographic systems | 2015 | Models of the ImagerIR® thermographic camera series can now be equipped with a 10 GigE interface; The subsidiary InfraTec infrared LLC coordinates sales of thermography systems in the USA from now on |
| 1998 | First mobile FPA camera VarioTHERM™; Introduction of the thermographic software family IRBIS® | 2016 | Expansion of leading position in thermography systems by the introduction of the ImagerIR® 10300 camera, which allow images in Full HD format for the first time ever |
| 1999 | Introduction of the uncooled industrial camera series PIR uc | 2017 | Ten-year anniversary of the US subsidiary InfraTec infrared LLC |
| 2000 | First system for automatised object monitoring IROD; Introduction of the third generation of high resolution scanner systems with the product series VARIOSCAN high resolution | 2018 | Based on binning technology, the new high-end camera series ImagerIR® 9400 offers the choice between high-speed and HD modes, InfraTec presents VarioCAM® HD Z thermography system, the first radiometric uncooled zoom camera |
| 2001 | InfraTec introduces the worldwide first radiometric FPA thermographic system M700 with a detector array of (640 × 480) IR pixels | 2019 | Technically enhanced high-speed camera ImagerIR® 5300 enables frame rates in subwindow modes of up to 105 kHz |
| 2002 | First IR rotation test rig with high-speed camera technology | 2020 | Launch of the ImagerIR® 8300 hs - a new generation of high-speed camera with up to 1,000 Hz in full-frame format; Inauguration of the new clean room and office building at the Dresden site |
| 2003 | Market launch of the camera series VarioCAM® – the worldwide first mobile microbolometer camera with (640 × 480) IR pixels | 2021 | Start of the construction of the extension building complex for the infrared measurement technology business unit, InfraTec celebrates its 30 th anniversary |
| 2004 | VarioCAM® is extended by the compact industrial version VarioCAM® head | | |
| 2005 | Market launch of the high-end camera series ImagerIR® by InfraTec; Foundation of a subsidiary in Great Britain | | |
| 2006 | New active thermographic system PV-LIT for photovoltaic applications | | |
| 2007 | Market launch of the worldwide first mobile microbolometer camera with Megapixel resolution, named VarioCAM® high resolution; Foundation of a subsidiary in the USA | | |
| 2008 | Introduction of the newly developed thermographic software family IRBIS® 3; Supply of an infrared test system for non-destructive weld seam testing to Volkswagen Group | | |



Consulting Is Our Daily Business

When it comes to the complex field of thermography, we are your competent partner. Whether you need an individually configured camera for your research project or want to monitor production processes with the help of our measurement technology – our experienced engineers are there to help you in word and deed.

Are you Looking for More Than Just an Infrared Camera?

The solution of your measurement task is in the focus of our attention. With specialist knowledge and a sense of proportion, we recommend the optimum system for your application. With our experience we calculate scenarios for alternative camera equipment. The customised software for analysing and documenting your measurement results is also developed in our company. Our competent staff will support you well beyond the actual purchase. Among other things, our service department supports you with remote maintenance or recalibrates your infrared camera.

The Very Best Solution for Your Measurement Task

Our product range includes high-quality camera systems for all areas of application in infrared thermography. We invite you to discuss your specific application with our specialists and find the appropriate model for your requirements – combined with a wide range of accessories.

▪ **Research and Development**

Use thermography to detect structural defects in components and assemblies and optimise them already during product development.

▪ **Process Optimisation**

Temperature-dependent production processes and procedures can be monitored, controlled and optimised without contact using thermography systems.

▪ **Monitoring of Objects and Plants**

Continuously operating IR systems enable early detection of critical temperatures, for example in waste-to-energy plants, warehouses as well as in open areas, even over long distances.

▪ **Quality Management**

As a non-destructive testing method, thermography is a smart, time- and cost-saving technology for quality assurance in production.

▪ **Aerial Thermography**

Thermographic images can be used to detect people, animals and objects in the field or to record large-scale geological conditions or environmental damage from the air.

▪ **Security Systems**

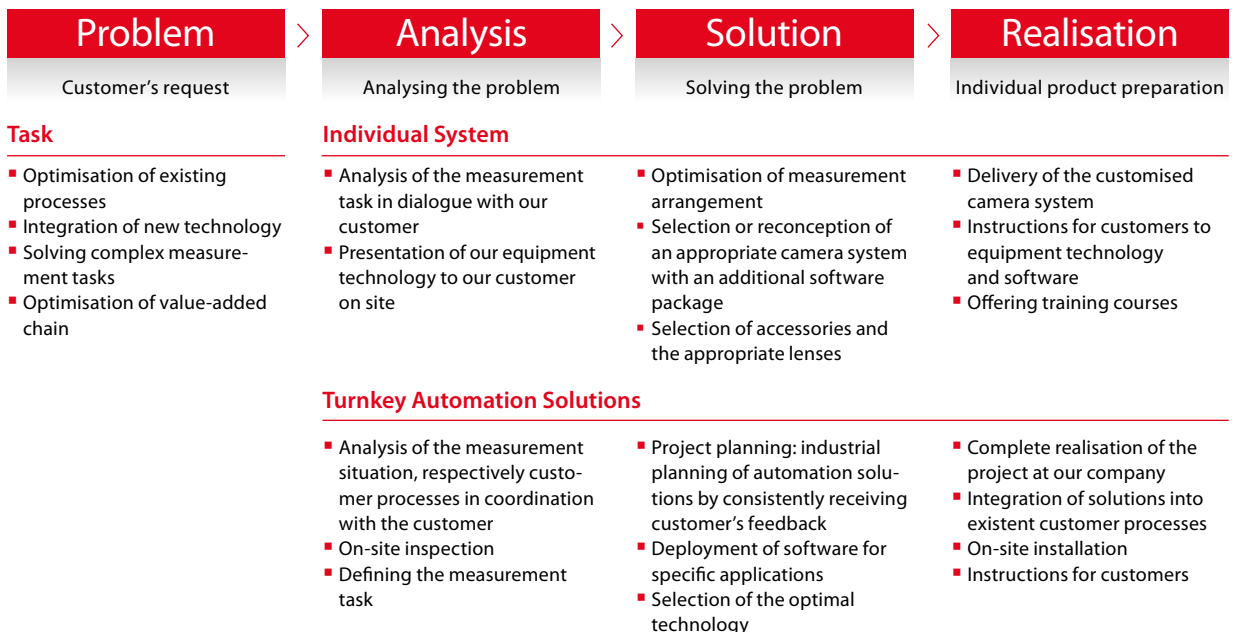
Observation tasks pose great challenges for authorities; powerful infrared cameras are becoming increasingly indispensable here.

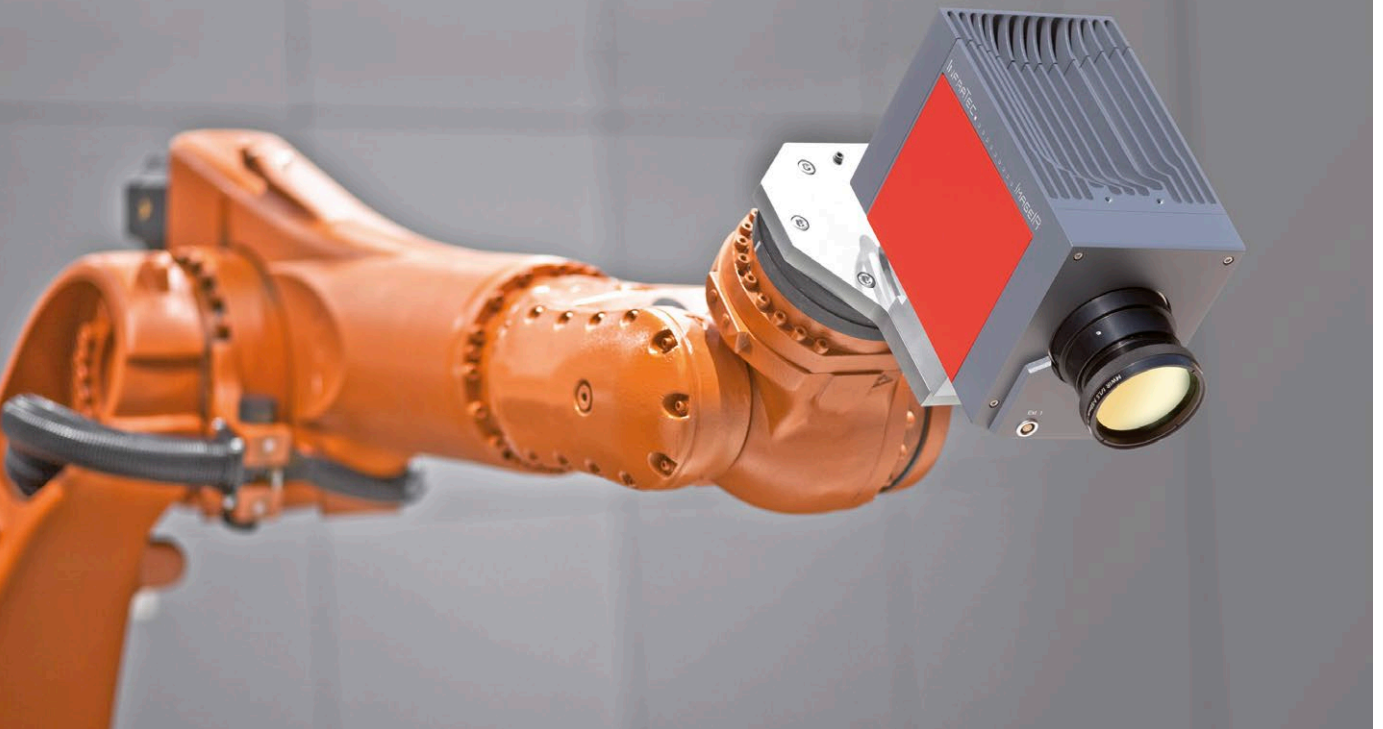


"We test the insulation resistance of generator components with two InfraTec cameras which are both versatile and easy to manage. Recently, we have sent in one of these cameras for a calibration and received a loan unit without any problems. Great service!"

*Hans-Bernd Twellmann
Siemens Energy, Mülheim on the Ruhr (Germany)*

InfraTec's Consulting Service:





Fully integrated into your processes

Increase your added value through perfectly customised industrial systems by InfraTec. We realise your project at our company. Benefit from our long experience in automation projects all over the world.

Robust Technology “Made in Germany”

Only the most solid and proven camera technology is used in process integration. It is specially designed for continuous industrial operation. Industrial-grade system components, housings and special cabling ensure a long life cycle. Customer satisfaction is the focus of all processes defined by the ISO 9001:2015 certified quality management system.

We supply you with professional measurement technology made in Germany. The thermography systems come from our own production or from our long-standing partner JENOPTIK.

Individual Solutions

After a thoroughly performed analysis of your processes and with the knowledge of your specific requirements, we develop together an exact conceptual formulation for your

individual solution. Test criteria for measurements are stipulated in detail. We create your thermographic automation solutions including an on-site installation. After commissioning, we will train your staff and undertake maintenance in order to secure your investment in the long term.

Typical Applications of Thermographic Automation

- Quality assurance in press hardening
- Process control in industry
- Defect detection in photovoltaics
- Inspection of electronic and semiconductor modules using lock-in thermography
- Load testing of brake discs and tyres
- Non-destructive testing of components and assemblies
- Thermal monitoring of solar tower power plants
- Preventive fire protection for warehouses and waste-to-energy plants
- Monitoring for the production and processing of high-quality steels
- Property protection through thermal monitoring



We Research and Develop on Your Behalf

"InfraTec's engineers supported me at short notice in calculating alternative calibration curves for my camera system. Therefore, I quickly found the optimal solution for a tricky measurement task. I felt perfectly advised."

*Jan Sievert
Robert Bosch GmbH,
Schwieberdingen (Germany)*

Our development department conducts applied research on thermography at our headquarters in Dresden where camera and sensor technology is continuously further developed. Perfectly-equipped measurement laboratories provide best conditions for highly skilled engineers in realising customers projects. Our development teams trust in their long-time experience with infrared and micro system technology.

Your Secure Investment

Particularly difficult tasks of thermography are previously examined by us in order to decide which camera system is most suitable for solving your thermographic problem. Feasibility studies provide security for your purchase decision. Either in our laboratories or on-site, extensive preliminary investigations and material tests are carried out by our experts. On the basis of these findings and our expertise we will define your ideal camera system including an additional calibration for upcoming measurement tasks. Being on the safe side, we will consequently meet your needs.



Innovations to Grasp

German engineering and more than 30 years of experience in thermography create useful innovations for your demands. Your ideas and suggestions are our strongest motivation.

Customised Measurement Technology

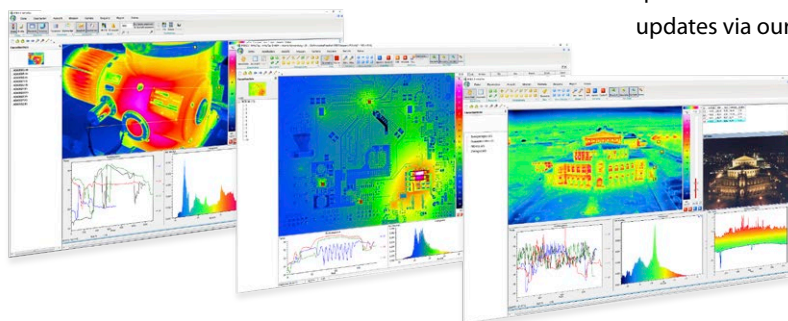
We develop cameras for all fields of application and especially for demanding users. In particular, we are very proud of our company's high-end camera series ImageIR®. Special infrared optics, optional equipment and extensive accessories are produced by us fulfilling your needs. On creating, structuring and prototyping electronic circuitry, lenses and optical channels, we deploy all our skills and expertise.

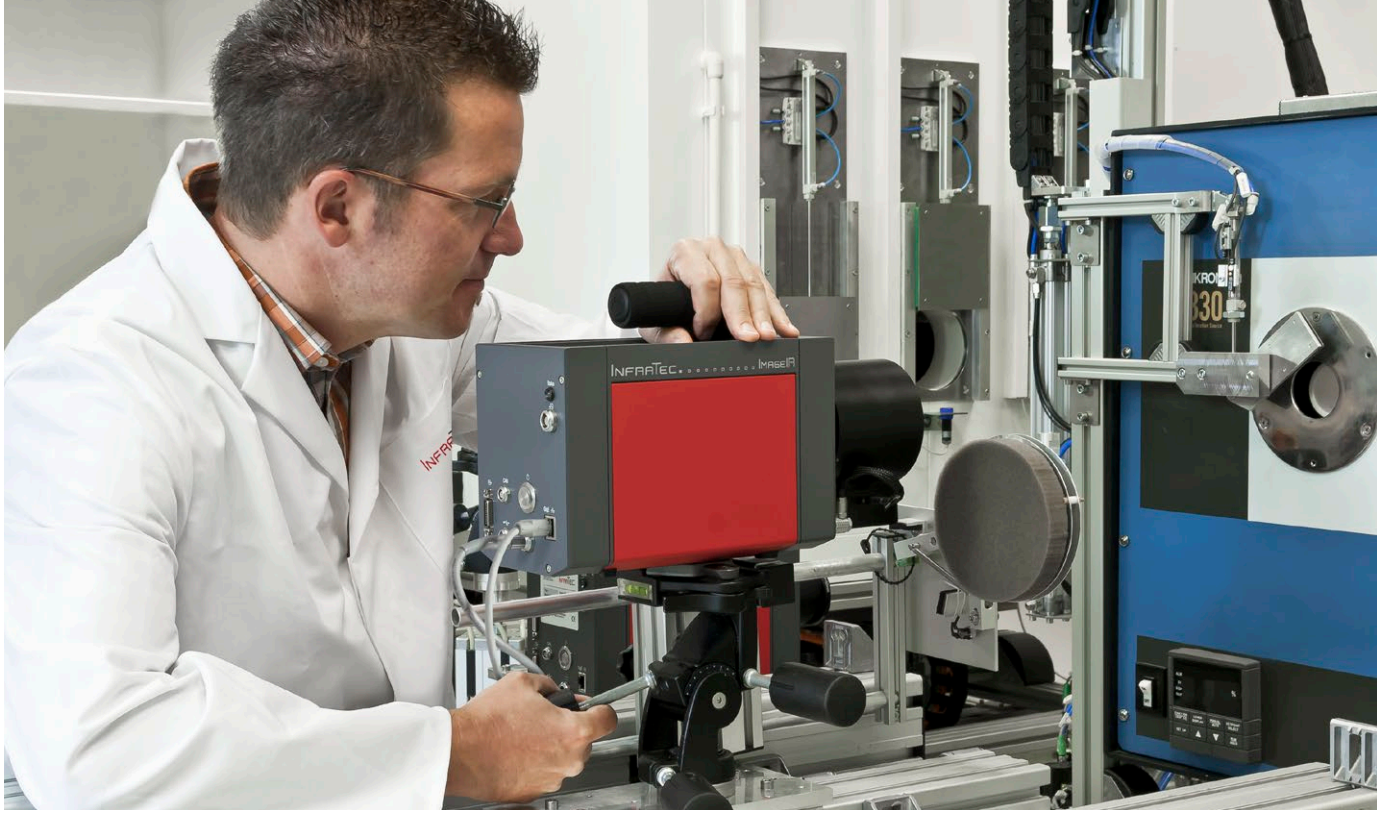
Convenient Handling of Measurement Data

The innovative thermography software family IRBIS® 3, developed in-house by InfraTec, offers numerous functions and tools for an efficient analysis of thermography measurement data as well as for professional creation of thermography reports. The software enables convenient camera control and data acquisition. It also allows the camera to be easily integrated into existing systems via the supplied Software Development Kit (SDK).

Most Suitable Tool for Each User

Depending on the focus of the application, there are extension modules and packages of different performance levels available. The modular concept allows you to customise the functionality of your software package according to your requirements and application focus. You can obtain regular updates via our customer online portal.





We Are Creative

Apart from infrared sensors, thermographic systems are manufactured at our headquarters in Dresden. The flagship among InfraTec's high-end cameras is our own developed camera series ImageIR®.

High-Tech and Conceptual Accuracy

Due to the modular construction of our systems, we are able to provide the best solution for your specific case of application. According to your demands, our development department constructs, customises equipment individually and examines the fulfillment of all your application's requirements.

Before delivery, accurate inspections are performed on each outgoing camera. In order to guarantee excellent technical functionality on actual manufacturing conditions, defined load testings, for instance in a climatic chamber, are carried out carefully. Additionally, all individually developed software components are also explicitly tested before their employment.

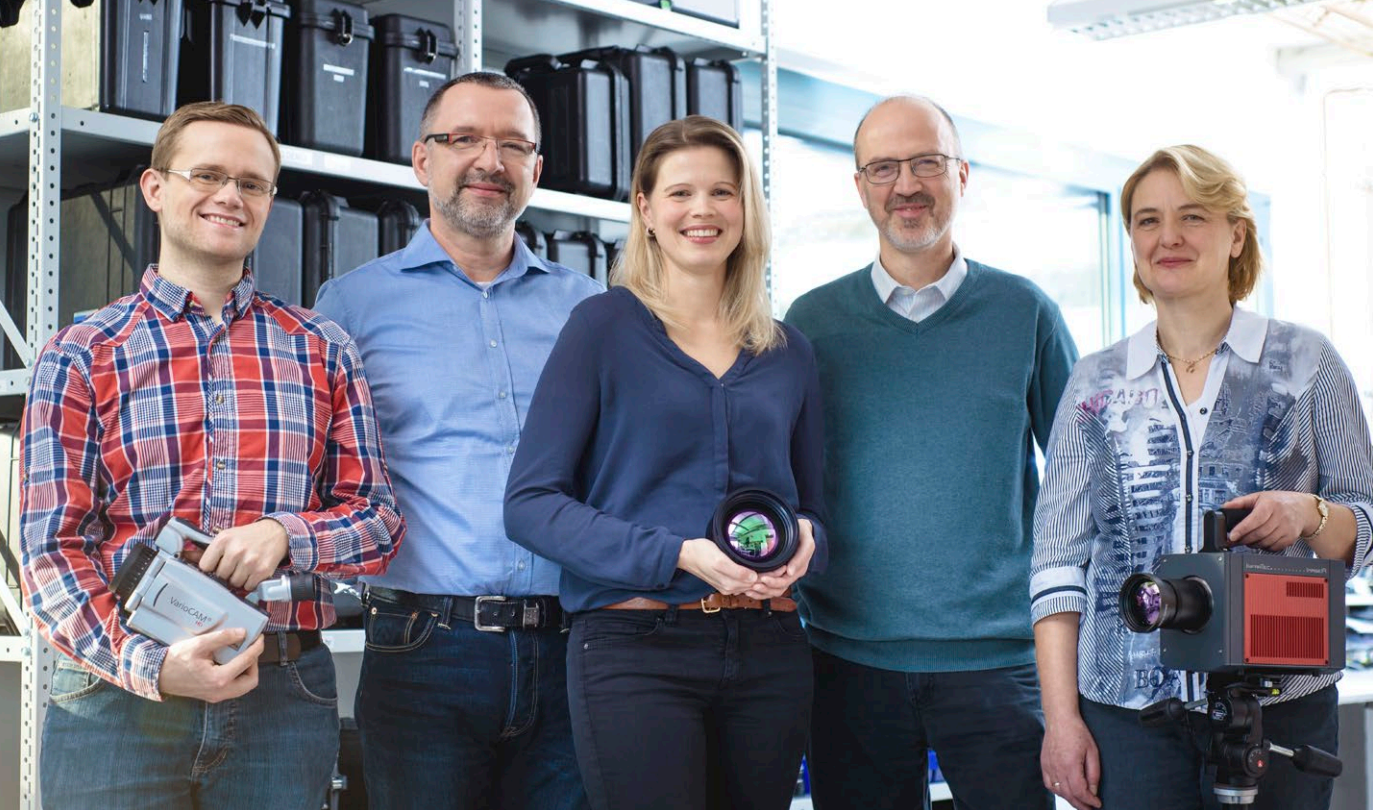
A Sense of Proportion for High Accuracy

Our high demands on functionality and quality are fulfilled by applying high quality material and components. Assemblies

are carried out carefully by our experienced engineers. Skilled workers build up and activate complete systems on site. Thus, thermographic systems and automation solutions come into existence which you will be totally satisfied with.

»In day by day business it is nice to have partners who reliably stand by your side. For more than 14 years now, InfraTec Dresden and Volkswagen Sachsen GmbH have been linked by a stable and very successful partnership for both sides, in which projects are successfully implemented in a customer-oriented way and with attention to detail.«

*Ralf Albrecht
Volkswagen Sachsen GmbH, Zwickau*



Our Service Supports You

We Exceed Your Expectations

On deciding for one of our systems, the respective one will be exactly calibrated according to your needs. Each camera is provided with extensive accessories, informative manuals and the appropriate software for analysing measurement data.

Repair and Maintenance

We help you with advice and support especially after the purchase of your thermographic camera. Send us your infrared system for regular maintenance. In case of technical issues, we collect your system and provide, on demand, an equivalent substitute until your system is again fully operational.

We Measure at the Large and Small Scale

Extensive geological conditions or ecological damage can be detected by us through thermographic recording from the air. Thermal processes of smallest elements can be analysed accurately to the exact micrometre.

Perfect Expert Knowledge

Exact Technical Know-How

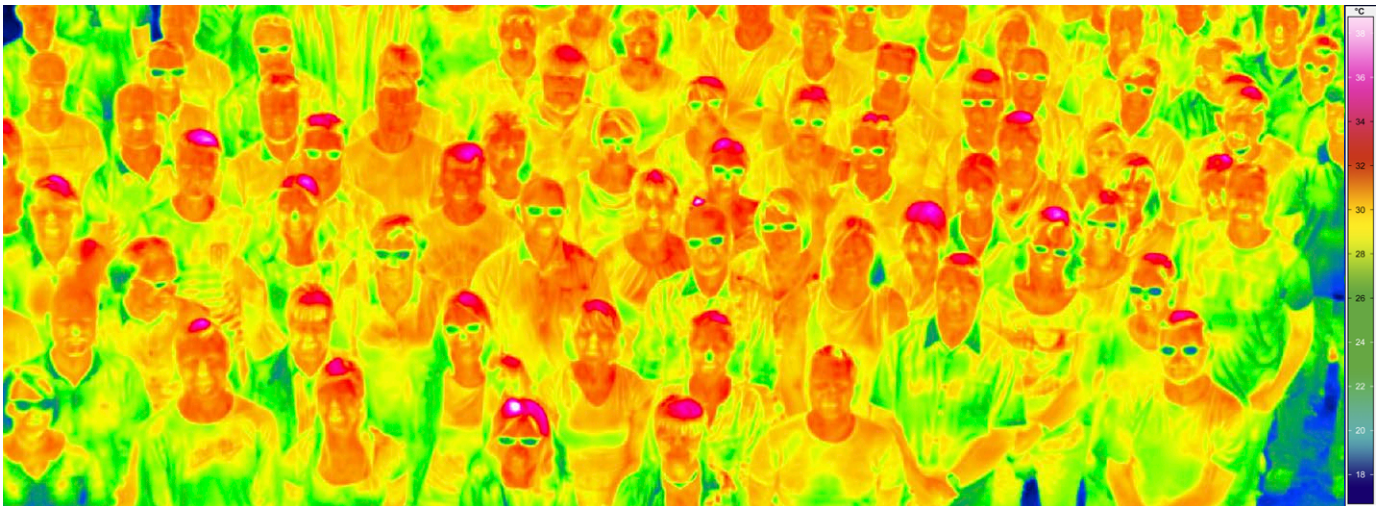
Instructions for your new camera system and the respective application of the analysis software can be provided by us on site. Experienced experts in thermography train your staff in customised seminars not to leave out any questions.

Extensive Seminars and Trainings

All you need to know in theory and practice can be learned in our InfraTec seminars on thermography. Our high-skilled and hands-on experienced staff equip you with knowledge in small groups. All your questions will be answered in informative training sessions providing individual advice and support. Participants are provided with detailed training material which helps them to consolidate the acquired knowledge at home. Furthermore, InfraTec offers especially for advanced users additional and certified infrared thermography seminars on level 1 (in accordance with DIN EN ISO 9712) which regularly take place at our training centre in Dresden.

Why to Choose InfraTec

- More than 30 years of experience, 30 camera systems, 8,000 customers worldwide
- Expertise on almost every application field of thermography
- Highly qualified specialists and engineers
- Secure investment through preliminary feasibility studies
- Customer-specific systems
- Most recent, high-quality infrared technology “Made in Germany”
- Customised, professional software tools for all camera systems
- Extensive service before and after purchasing



Just Ask the Specialists!

Just Ask InfraTec!

We Are There For You.

Infrared Cameras from InfraTec – precise, reliable, efficient



Want to know more?

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