



## > press release



### **Minister of State Joachim Herrmann starts the serial production of turbine blade testing systems at Thermosensorik GmbH**

Erlangen, September 5, 2008

This friday, Thermosensorik GmbH presented the ThermoSpector<sup>GTC</sup> turbine blade testing system during a press conference, and at the same time announced the start of series production. Bavaria's Minister of State, Joachim Herrmann, acknowledged the significance of this technology during the ceremony, started up the first ThermoSpector<sup>GTC</sup> produced in the new manufacturing facilities, and congratulated Thermo-sensorik GmbH on the company's forthcoming 10-year anniversary.

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The ThermoSpector<sup>GTC</sup> represents the second generation of thermal imaging systems for the non-destructive testing of high-temperature turbine blades. After the great success of the prototype system, which Thermosensorik GmbH delivered to the Siemens gas turbine plant in Berlin in 2002, two follow-up orders from national Siemens companies in Great Britain and China initiated further development towards the ThermoSpector<sup>GTC</sup>. Building on operational experience gained with the prototype system run in tough 3-shift operation, the complete test and system technology and the interfaces to the customers' manufacturing control systems were optimized and partially redeveloped. This provides a higher degree of automation up to the fully automatic "Good/Bad" decision and greater operator convenience. In addition, the construction was optimized to provide very easy assembly and maintenance. This also includes a remote maintenance concept, especially in regard to the worldwide use of the ThermoSpector<sup>GTC</sup>.

Because of the continually growing demand for thermal imaging turbine blade testing systems, the development of the ThermoSpector<sup>GTC</sup> was aimed at a clearly specified product, producible in series, which can be adapted with minimal modifications to the requirements of the manufacturers of turbine blades for both stationary gas turbines used in electricity production and for jet engines used in aircraft. For production, other facilities have been leased in the vicinity of Thermosensorik GmbH and refitted to meet the requirements of production. Minister of State Joachim Herrmann started up the first ThermoSpector<sup>GTC</sup> produced in these new manufacturing facilities and thus symbolically opened the series production of this test system. Subsequently, the two ThermoSpector<sup>GTC</sup> systems, each representing a value of approx. €1 million and soon to be delivered to the customers, were demonstrated in a test operation resembling real-life conditions.

Managing Director Thomas Hierl and Sales Manager Dr. Christoph Döttinger presented the guests and journalists with a descriptive introduction to the system concept and the technology of the ThermoSpector<sup>GTC</sup>. Thomas Hierl added: "Without the underlying heat flow thermography, an economical application of modern gas turbines for the production of electricity would be significantly hampered. Even the turbine blades of the world's largest gas turbine, with an output of 340 MW, were tested with our prototype test system in Berlin and proved to be good. This turbine is part of a highly efficient gas and steam (German abbreviation: GuD) power plant, which is currently under construction in Irsching near Ingolstadt (Bavaria)."

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The ThermoSpector<sup>GTC</sup> is used for the automatic testing of turbine blades in several stages of production. This leads to reliable safeguarding of manufacturing quality and to considerable cost savings. Manufacturers of stationary gas turbines for power plants are therefore already convinced of the remarkably short "return on investment" times of the ThermoSpector<sup>GTC</sup>; inquiries from manufacturers of jet engines for aircraft have just begun.

As Managing Director Thomas Hierl emphasized in his short presentation, the ThermoSpector<sup>GTC</sup> represents an important milestone in the company's history, since Thermosensorik GmbH has been able to develop into a "hidden champion", uncontested in this field throughout the world. The logical advancement of the innovative technology, he believes, is important: "We are especially proud that we were also able to transfer the modular system concept of the ThermoSpector<sup>GTC</sup> to our other thermal imaging test systems. Thus there is a pleasantly high percentage of "identical parts" in our systems for fully automatic, non-destructive testing of welding joints in the automobile industry."

Bavarian Minister of State Joachim Herrmann acknowledged the significance of the technology during the ceremony, and congratulated the company on its almost simultaneous 10-year anniversary, which Thermosensorik GmbH will celebrate even more elaborately under the motto "10 Years of Continuous Innovation in Infrared" at the end of October. Minister of State Herrmann was delighted about the brilliance of innovative products from Franconia and Bavaria, some even for export; after all, both systems are used in factories in Great Britain and China.

Finally, Mr. Hierl thanked the Minister of State and all the other guests for their attendance and expressed his appreciation to all staff members who participated in the development and manufacturing of the ThermoSpector<sup>GTC</sup> presented today. Because two such large projects naturally involve almost all of the 34-strong work force, he expressed his gratitude for the successful management of the joint effort by the whole of Thermosensorik GmbH. For their untiring top performance, which was sometimes rendered under enormous stress, Mr. Hierl acknowledged the Technical Director, Mr. Manfred Böhm, and the Sales Manager, Dr. Christoph Döttinger, both representing their teams.

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### About Thermosensorik GmbH

Thermosensorik GmbH was founded in 1998 as a spin-off of the University of Erlangen-Nuremberg and the Bavarian Center for Applied Energy Research. As a pioneer of imaging heat flow analysis, Thermosensorik GmbH made decisive contributions to the development of this new technology for non-destructive material and component testing. Today, the product range encompasses high-resolution infrared system cameras (including those with the highest image frame rate), manual testing systems for the laboratory and fully automatic, production-integrated testing systems for the non-destructive detection of cracks, blowholes, delaminations, faulty joint connections, etc. as well as for fast imaging layer and wall thickness measurement.

Thermosensorik employs more than 30 highly-qualified staff members and has a close network of efficient suppliers. More than 100 installations at research institutes and in the industry prove day by day the efficiency of Thermosensorik's products. Apart from manufacturers of turbines, major German automobile manufacturers also rely on Thermosensorik's testing systems for non-destructive testing in serial production.

In 2003, Thermosensorik GmbH was given the Founder's Award by the Chamber of Commerce (German abbreviation: IHK) in Nuremberg. Siemens AG, through its subsidiaries Siemens Venture Capital GmbH and Siemens Technology Accelerator GmbH, has been a minority shareholder in Thermosensorik GmbH since 2006.

Further information is available at: [www.thermosensorik.de](http://www.thermosensorik.de)

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