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Z-LASER

**TOP
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MANUFACTURING
COMPANIES IN THE
EUROPE 2020**

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*The annual listing of 10 companies that are at the forefront of providing
Equipment Manufacturing solutions and impacting the industry*

Z-LASER

Driving Precision in the Medical Imaging

The ability to capture reality in the form of an image has always fascinated humans. In the medical industry, this ability—known as medical imaging—is a visual rendering of data generated by a human body, which has revolutionized the medical landscape over the past century. Today, medical/diagnostic imaging is instrumental for attaining visual representations of the interior of a body for attaining visual representations of the interior of a body for diagnostic and therapeutic purposes. In the wake of technological advancements, ageing global population, rising incidences of chronic diseases, innovations in medical imaging procedures, and increasing awareness for early diagnosis, the medical imaging market is witnessing rapid growth. However, the industry is mired in challenges when it comes to leveraging these technologies to achieve desired results—for instance, getting the position of the patient right, which is crucial for the quality of the scan.

An incorrectly positioned patient not only leads to an out-of-focus scan image and unsatisfactory results but also exposes the patient to yet another dose of radiation. To eliminate such errors, what medical professionals require is laser lines as optical support for the correct positioning of the patient. This is precisely what Z-LASER brings to the table.

Z-LASER is a German manufacturer of laser sources for innovative customer applications. The company—in close cooperation with leading manufacturers of medical technology—develops laser systems, modules, and building blocks for patient positioning in diagnostic imaging and tumour therapy. Drawing on its 35 years of rich experience in the field, Z-LASER empowers its customers with sophisticated laser technologies and designs, which are offered as OEM components. Evidently, over the years, Z-LASER has evolved into an internationally known manufacturer of line lasers and laser projectors for positioning applications and instrumentation. The uniqueness of Z-LASER stems from the unparalleled laser product portfolio and long-term expertise it brings to the table to develop

customised solutions that meet special requirements and difficult applications for patient positioning, dermatology, radiotherapy and surgery. “Our optical know-how allows us to generate exactly and reliably the laser mark our customers require. Our electronics are tailored to drive and monitor the laser and to communicate with the host system. Our mechanical design assures perfect fit and alignment. The combined result is a reliable and safe solution for patient treatment,” says Dr Hans Ebinger, CEO, Z-LASER.

Typically, laser class 1 laser modules are used for accurate patient positioning in an X-ray or MRI. To that end, Z-LASER supplies various manufacturers of such scanners



Dr Hans Ebinger

with systems tailored to the laser modules. Z-LASER offers three major lasers for its clients. The Image Amplifier Laser is focused on improved patient positioning, with mini laser modules attached with a ring. The X-Ray Source Laser, on the

similar forms of the projection patterns. The company can also offer sub-systems such as laser product mounted into a housing, frame, or assembly group. "We aim to offer 'smart' products with integrated sensors and increased



other hand, comprises a laser cross, which is aligned with a lead cross on the image amplifier. Thirdly, the Iso-Centre Laser helps in positioning the exact height of the patient. All these three lasers are clubbed together to form a C-Arm, which proves beneficial in the delivery of higher quality scans and images, reduced dose of radiation for the patient, all while being time and cost-efficient.

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That's not all; Z-LASER also develops laser modules for radiotherapy procedures and CT/MRI. The company's laser scale projector is a distance measurement device that ensures the patient is at the recommended distance from the radiation source. The CT/MRI laser modules facilitate improved three-dimensional patient positioning. "Our products are aimed at enhancing the production process of our clients. Our laser built into our customers' product leads more features for the end-user just like a visual alignment guide," elaborates Dr Ebinger.

Z-LASER's laser devices are dedicated to delivering high projection visibility, along with multiple wavelengths (colours) and lines, hair crosses, scale projections, and

functionality. The importance of software and the related added value in our products is steadily increasing." adds the CEO.

What makes Z-LASER stand out among the rest of its peers is its strong R&D and engineering departments that make up approximately one third of the workforce. The teams are specialised on continuous improvement of the standard product portfolio and OEM solutions. Experts at Z-LASER also conduct annual and continuous audits to meet ISO9001, REACH, RoHS 3, CMRT, laser safety, and similar standards and norms. "Our black forest region is well known for its long tradition in making world class precision products. We took these skills to build laser devices, that our customers value for their robustness, reliability and functionality," states Dr Ebinger.

Moving ahead, Z-LASER is committed to leveraging its unique selling points and technological advantages for developing its products, building up competence and know-how in order to be successful in the competition. Dr Ebinger credits the success of the company to its dynamic team that operates in a personal working atmosphere and promotes exciting tasks in the photonics industry creativity and personal responsibility. "We are a great multi-disciplinary team at Z-LASER, enjoy working together and love solving challenging tasks for our customers. That comes well across, provides the basis for a long-term business partnership and ultimately generates customer satisfaction," concludes Dr Ebinger. 