**Press Release**

**formnext 2025: Laserline Presents First 30 kW Zoom Optics**

**New Special Optics for Internal Coatings and Blue High Brightness Lasers Also in Focus**

 *Laserline will be presenting innovative optics solutions for industrial laser cladding at formnext 2025. The focus will be on a newly developed 30 kW zoom optic for flexible cladding processes, a new specialized optic for wear and corrosion protection coatings on internal geometries, and blue high brightness lasers for the additive manufacturing of non-ferrous metal components using laser-based powder bed processes.*

**Mülheim-Kärlich, October 2, 2025 –** Special optics for laser cladding are the focus of Laserline's presentation at this year's formnext (November 18 to 21, Frankfurt am Main, Hall 12.0, Booth C122). The highlight of the trade show is the newly developed OTZ zoom optics for diode lasers with up to 30 kW output power. Laserline zoom optics have already set standards in the flexible cladding of components, and the new 30 kW version now marks another milestone in the continuous development of high-performance cladding solutions. It allows variable adjustment of the spot size and is therefore ideal for a wide range of process requirements – from the processing of small precision components to large surfaces. This makes it ideal for applications involving frequently changing workpieces, such as those found in contract manufacturing. A model of an OTZ optic will be on display at the booth.

**Internal Cladding of Pipes and Truck Brake Discs**

The new OTI optics are also part of the trade show portfolio. They were specially developed for the implementation of corrosion and wear protection coatings on cylindrical and linear internal geometries such as pipes and complex components such as truck brake discs. Due to their geometric properties, coating these components is particularly challenging. Nevertheless, the OTI optics enable reliable processing even in areas that are difficult to reach. Its compact design and angled nozzle allow for large immersion depths of up to several meters and ensure precise laser beam guidance along the pipe axis. The result: homogeneous coating over the entire length of the component with high reproducibility. In combination with the powerful Laserline diode lasers, the optics enable high material deposition rates and process speeds, even on larger internal surfaces. Thanks to their compact design, the new OTI optics can also be easily integrated into automated manufacturing processes. Visitors to the Laserline booth are welcome to learn more about the advantages of this solution.

**Additive Manufacturing of Copper Components Using High Brightness Laser**

In addition, Laserline showcases two blue high brightness diode lasers at formnext: the LDFblue 400-wbc and the LDFblue 800-wbc, which combine the industry-proven LDFblue technology with the innovative blade engine from Laserline's subsidiary WBC Photonics. They operate at a wavelength of 445 nm and, thanks to their excellent absorption in non-ferrous metals, enable highly material-efficient, spatter-free additive manufacturing of copper, gold, or aluminum components in the laser-based powder bed process (laser powder bed fusion). The high brightness lasers are available with output powers of 400 or 800 watts and fiber diameters of 50 µm or 100 µm. Their robust, IoT-enabled system architecture ensures high process stability and facilitates integration into modern manufacturing environments.

Further information about Laserline and the products presented can be found at <https://www.laserline.com/>

**About Laserline:**

Laserline GmbH, based in Mülheim-Kärlich near Koblenz, was founded in 1997. The company is a world leader in the development and manufacture of extremely efficient, modular diode laser systems at blue and infrared wavelengths. Laserline high-power diode lasers achieve output powers of up to 60 kW and an electrical efficiency (WPE) of over 56%. Based on decades of experience, Laserline develops customized laser solutions for industrial applications – including high-quality beam-shaping optics for the realization of variable spot geometries – and has established itself internationally as a reliable partner. More than 8,000 high-power diode lasers from Laserline are currently in use around the world, demonstrating their performance in a wide variety of processes and applications. The laser technology specialist currently employs around 400 people and has international subsidiaries in the USA, Mexico, Brazil, Japan, China, South Korea and India. Further information at <https://www.laserline.com/en-int/>

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