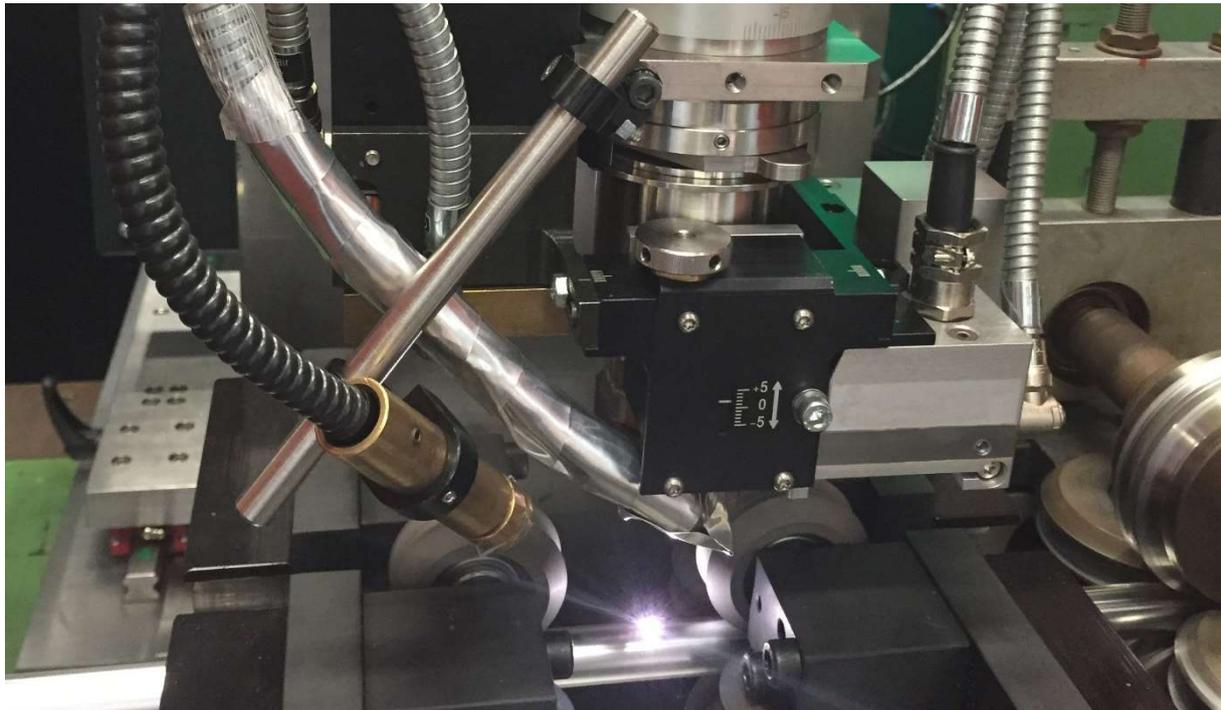


## QUALITY IS A CONSTANT



**Audi, BMW or Mercedes: several renowned car manufacturers have been relying on quality management systems made by plasm<sup>o</sup> for many years. plasm<sup>o</sup> has been placing its trust in lighting technologies made by Photonic for an equally long period.**

Though fibre-optic light guides may be very small, the revolution they have triggered in the world of sensors and measurement technology is gigantic. Sensors based on fibre-optic light guides can really play out their strengths in industrial conditions. Arnold Braunsteiner, CEO of plasm<sup>o</sup> Industrietechnik GmbH, a company loyal to the quality of Photonic for two decades, affirms that robustness plays a crucial role in these environments. „We typically carry out measurements in very hot environments where plastic fibres would normally melt“. He uses the example of an application that controls welding radiation during the laser welding of airbag detonators. „Here we must ensure that welding is 100 percent tight. Otherwise, in a worst-case scenario, this could lead to a malfunction of the entire system“.

### **Robust and UV-resistant**

plasm<sup>o</sup> also uses fibre-optic light guides made by Photonic in several other quality assurance solutions it offers to customers from the automobile, metal processing, or laser technology industries. „We can be sure that Photonic will apply its entire bandwidth of know-how in every single project“, Braunsteiner emphasizes. This is also necessary as the requirements are high. „For plasm<sup>o</sup>, for instance, we produce light guides which can be up to 60 meters long so we must ensure that the cable layout is impeccable. In addition, our UV-resistant light guides are often used close to welding processes. Therefore, they must be absolutely tight so as to prevent any penetration of heat and dust“, Photonic Managing Director Thomas Köbel explains. Yet they must also withstand other, equally extreme loads. The constant bending or stretching by means of cable tracks, for example, often subjects the individual glass fibres to alternating pull and pressure forces. „By installing couplings in the light guides, we make sure that they are not subject to wear and tear“, Köbel emphasizes.

Using entire fibre bundles is essential for plasm<sup>o</sup>. Even if individual fibres break, the life expectancy of the entire bundle remains very long. For plasm<sup>o</sup> customers, this is the decisive argument because replacing a fibre is a very burdensome procedure as these fibres are typically installed inside a machine.