Optical Flow Module Welding

The weld pool contains important information about the welding process, which can be used by the process controller to adjust the welding parameters and regulate the weld pool width in order to allow ...

Suitable for various welding processes (keyhole / conduction welding, pulse / CW laser). Full tracking and traceability provides complete part history.

Optical methods, such as digital image correlation (DIC) or optical flow algorithms, have demonstrated their efficacy in robust and reliable data acquisition in harsh environments, including ...

Abstract que that controls the generation of cold defects and oxide inclusion in the welding process. By analyzing the welding mecha-nism, we optimize the welding cond tion and develop a new monitoring ...

JPT In-process Welding Modules provide intelligent, real-time monitoring during laser welding. By tracking critical indicators throughout the process, they ensure precision control, optimize efficiency, ...

The common welding defects and their formation mechanisms are described, starting with an introduction to the principles of laser welding. Optical signal sources are divided into radiated and ...

Besides all the effort in mechanical and optical integration of the sensor components, the real innovation achieved with the adapted technology is as follows.

ILWS systems are comprised of everything you need for high-quality and high-speed laser welding, including IPG laser, beam delivery, and software with options like vision and real-time weld ...

The system combines welding optics, optical seam tracking and integrated quality control to create a high-precision complete system for automated series production.

Web: https://maxtools.co.za