

Highlight

Zamudio,
March 14, 2012

Computer-aided Configurator for Laser Polymer welding

Development of new techniques for polymer welding is under analysis within the POLYBRIGHT consortium. Complementary to this task, a software tool aims to support the welding solution from the pre-process stage, where decisions concerning the system configuration must fit the quality requirements of each different scenario.

As part of Work Package 5, software has been developed combining the know-how of polymeric materials and laser welding systems shared by the partners, in order to assist end users during their laser welding configuration process. The application accepts some inputs, covering basic information about the desired polymers and some conditions imposed to the welding process.

The core capabilities of this software rest on the know-how gathered up concerning the plastic welding field. Provided that enough information about factors involved in the welding process is available, the application outputs some tips and suggestions on the most suitable equipment to be utilized, along with a machinery reference list. Moreover, possible deviations and corrections on the welding process behavior can be detected and supplied to the user in the form of a schematic report.

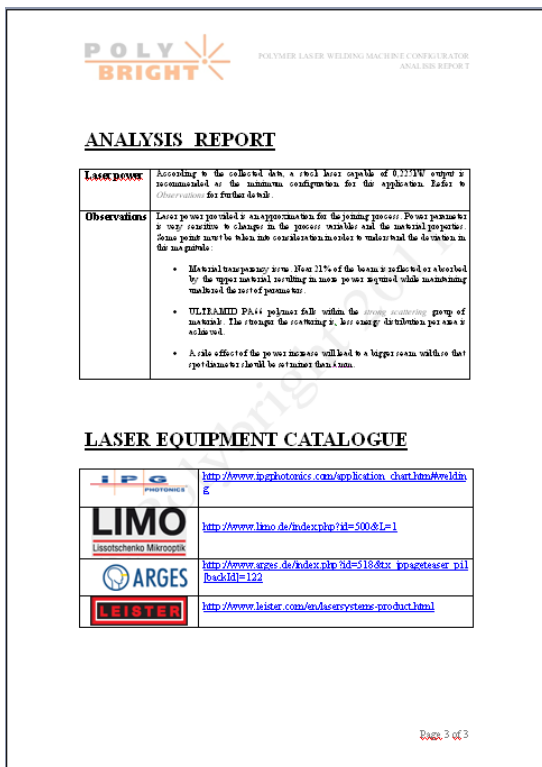


Figure 1: Machine configurator sample report

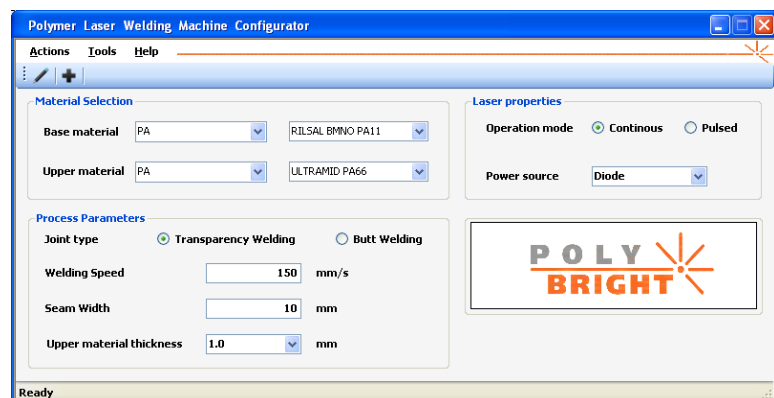


Figure 2: Machine configurator interface



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