

Tec Eurolab Srl

Additive manufacturing for biomedical applications: testing and certification

As machining is considered “standard process”, additive manufacturing should be called “special process”. Quality of product is strongly related with the whole process, from design and specifications’ definition to the final control of parts. Mechanical characteristics of the final component are strongly connected to the morphology of powder, heat input, strategy of protection from oxides, part orientation, overhangs. The absence of process control of these aspects could generate a reduction of density or internal imperfections such as lack of fusion and micro cracks, thus will be a probable cause failure. Depending to the goals established and material properties the surface conditions influence the fatigue resistance. Certification of process and product could be the only way to guarantee the reliability of the process.

RELATORE



Giacomo Rigoni

Laureato in ingegneria meccanica nel 2004 presso Università degli studi di Trieste, ha lavorato presso la società SAVIO MT spa e dal 2007 è entrato nell’organico di Tec Eurolab srl. Si è occupato di certificazione di personale e processi di saldatura, dal 2013 si occupa di ricerca e sviluppo di processi speciali di additive manufacturing su materiali metallici.