

Influence of the additive manufacturing parameters on the Ti6Al4V microstructure

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The 3D printing on an industrial scale describe the one more advanced techniques. In the manufacturing process technology the model is created by successively layering material from a digital 3D model. The 3D manufacturing process allows obtaining complex geometry, weight reduction, and customized components. A careful microstructure characterization of the produced components is necessary, since the parameters influence in surface roughness, microhardness and corrosion resistance. Samples of Ti6Al4V built with the same laser speed, hatch distance and layer thickness but different laser power were analyzed. The variation in laser power influenced the roughness and corrosion resistance of the samples.