



## Post-processing of Ti6Al4V Preforms Manufactured by Wire Arc Additive Manufacturing (WAAM)

### Motivation

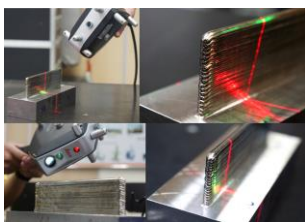
The development of deposition technologies collaboratively with machining processes is named hybrid manufacturing, the technology allows new possibilities for the manufacturing chain. Thinking about the impact of the joining of these technologies in the aerospace sector, the Ti6Al4V titanium alloy was used to build a representative component via WAAM process, looking to reduce the ratio buy to fly.

### Objective

To Evaluate the relevant aspects for the integration between additive and subtractive manufacturing process of Ti6Al4V walls produced by Wire Arc Additive Manufacturing

### Approach

- Evaluate dimensional deviations of the deposition using non-contact measuring equipment;
- Quantificate of the workpiece allowances;
- Evaluate the capability of the deposition process;
- Evaluate the machinability of the material through cutting forces.



$$\text{Área} = \frac{(\pi * D^2)}{8}$$

$$\dot{A}rea = \frac{(\pi * LT^2)}{8} = \frac{VAF}{VD} * AF$$

