

Review of the Effects of Friction Stir Welding Speed on Stainless Steel Type 304L.

Abstract

Friction Stir Welding (FSW) is a solid state welding method and is common for aluminum alloys. There have been many studies to apply this process for high melting materials such as steels and titanium. To make it applicable, there are many variables that must be considered, which one of them is FSW speed. Welding on high melting materials such as steels and titanium with traditional methods needs too high energy, many welders, electrodes, and generally is time consuming. By using friction stir welding, cost would be reduced on consumable materials, welders and energy. However, considerations of feasibility and different conditions for optimizing the method are so important. In this review paper, the main discussion was about stainless steel 304L and investigated the effects of friction stir welding speeds. Finally, a brief discussion was presented to summarize the effects of speed on friction stir welding.

Keyword: riction stir welding, FSW, speed