

A novel Linear Friction Welding approach sheet-bulk joining

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Abstract. In the last decades, the development of new, flexible manufacturing processes caused the increase of the demands for highly customized complex functional parts in many industrial fields. The peculiar design of these components often overcome conventional sheet metal and bulk metal forming processes capabilities. In order to face that issue new hybrid techniques, capable of exploit key advantages of different processes have to be developed. In this paper, a novel approach of the Linear Friction Welding process is proposed to obtain sheet-bulk joints. The feasibility of the technique on high specific strength alloys is investigated through experimental campaigns.