Arku soldadura



EKIPO ETA OSAGAI GARRANTZITSUENAK

▶ Planta piloto para el estudio de uniones avanzadas

Robotic arc welding cells (4 flexible cells). Acquisition date: 2017-2018. 5 power sources for arcwelding: TPS400i (FRONIUS): advanced MIG/MAG welding, EWM Activarc (advanced TIG welding), SBI plasma welding. 3 robots: FANUC (2) and KUKA (1). Rail guided welding carriage for automation of arc welding. Robotic laser welding cells (4 cells). Acquisition date: 2010-2017. Laser disco 5kW, Laser Nd-YAG 3 kW, diode laser 3kW, fiber laser IPG 1kW. Robots: ABB robot, robot ASEA IRB 2000, Robots FANUC 1 and FANUC 2, gantry (7 x 3 m). Fix and floating optical head. Specific FSW friction stir welding facility (Istir pds4 + TestStar TM controller). Acquisition date: 2005. Robotic FSW cell: KUKA KR500 3MT adapted with a FSW spindle and process control system. Acquisition date: 2014.







AKTIBOAK ESKAINTZEN DITUEN ZERBITZUAK

Advanced welded joints feasibility study. Advance

Advanced welded joints. Development of welding procedures for new materials, dissimilar materials, effect of new coatings on the welding, etc. Advanced welding processes: comparison of technologies in the market: pros and cons, challenges, etc. Evaluation of the feasibility of achieving satisfactory joint welds by different technologies. Evaluation at lab-scale and analysis of welding process scale-up. From lab-scale proof of concept or feasibility tests, to the study of the process industrialization and integration in the production chain.

First demonstrator fabrication. Proof-of- concept

Product development. Smart process control. Sensing and monitoring. Process parameters' optimization. Distortion control and optimization. Product properties optimization. Efficiency of the process analysis. Small series.

Quality improvement in welded joints.

Access to a wide range of welding technologies and welding suppliers. Comparative studies of different technologies in the market. Advanced characterization of welded joints. Smart process control to improve quality of the joints.







