

Pengaruh perlakuan pickling pada permukaan pelat baja tahan karat SS 304 yang mengalami pengelasan resistansi titik = Effect of pickling treatment on surface stainless steel SS 304 plate experiencing resistance spot welding

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20348420&lokasi=lokal>

Abstrak

Pada penelitian ini baja tahan karat SS304 di las dengan las resistansi titik dengan dua kondisi yaitu kondisi normal (tanpa pickling) dan di pickling. Pengaruh kuat arus terhadap peningkatan kekuatan tarik geser dan diameter nugget di investigasi. Struktur makro dan mikro yang terbentuk pada area lasan juga di investigasi. Hasilnya mengindikasikan peningkatan arus akan meningkatkan kekuatan tarik geser dan diameter nugget. Penghilangan lapisan oksida sebelum pengelasan resistansi titik kurang efisien.

In this study, stainless steel SS 304 were welded by resistance spot welding with two initial conditions which are normal condition (without pickling) and pickling. The influence of weld current to improve tensile shear strength and the diameter of nuggets was investigated. Macrostructure and microstructure formed in weld areas were also investigated. The results obtained indicate that the enhancement of weld current will increase tensile shear strength and the diameter of nuggets. However, removing the oxide layer before resistance spot welding carried out were seen less efficient.