

Investigation of Process Parameters on Strength of Welding Joint in GMAW

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Abstract: *The strength value most desired in any welding process is an excellent Ultimate Tensile Strength (UTS) of the weld, compared with the parent metal. Process parameters applied during the welding process ought to be subjected to continuous scrutiny and assessment because of the ever increasing demand for structural and industrial materials with weld joints possessing higher strength values. This study is intended to investigate the inadequacies of existing GMAW welding process parameters utilized by the investigated industrial firm in its signature welding protocol, by suggesting alternative, uniquely crafted, and improved process parameters to replace its existing signature welding protocol, thereby improving the weld results by attaining higher UTS. These suggested process parameters were thereafter subjected to reported literature, following which optimization was achieved by employing the Taguchi Method. Then in future work we will study the strength on universal testing machine and calculating the results.*

Keywords: GMAW.

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