Abstract

The necessity to unite dissimilar steel by means of processes of electrical arc welding is one practices very little common, but that, in some cases, it becomes by the complexity of equipment and machinery (like boilers, heat recovery steam generators, turbines, heat exchangers, etc) required in the industry necessary. The most usual unions are between not alloyed low alloy steels or, with steel of high alloy (like austenitic stainless steel). The previous thing requires that the processes, the metals of contribution and the methods of application of the welds are chosen carefully so that this is left but near the possible thing the nature of steel to unite. One of the methods that generate better results in this type of unions, is the use of the Schaeffler diagram [1]. By means of the study and the handling of this diagram the structure of the metal of weld can be predicted obtained in the stainless steel or dissimilar stainless steel union, with carbon steels, with or without alloy, starting off of material equivalent nickel as much of the base as of the contribution materials.

Keywords