

***Ampere Current Variation Analysis of SMAW Butt
Join Welding Connection Defect Type 2G Welding Using NDT
Method on Low Carbon Steel Plate St-37***

Name : KHAIRUNNIZAM
Nim : 2204161116
Lecturer : Syahrizal, ST.,MT

Abstract

Welding machine is a machine that can connect iron into a whole series so it can form a necessary shape, this research is done to know the value of strength in welding work objects. This study used *SMAW* welding using electrodes E 7016 with *different ampre currents* namely 70 A, 130 A and 150 A, materials used *st-37 lowcarbon steel material* with a thickness of 10 mm, after welding the workwork body will be *carried out ndt testing process* with two types of *testing namely penetrant test* and *ultrasonic test test*. Based on the results of research *on penetranttest t test* and *ultrasonic testt test* with welding current 130A only found one type of *defect namely undercut*, it can be interpreted that the type of current use 130A is the best type of current, while in currents 130A and 150A found more than one type of defect, *namely porocsity cluster defects, lack of fusion, slag inclusion and pore gas* in *ultrasonic test testing* and *blow hole and pore gas defects* in *penetrant test*.

Keywords :Electrodes, Current, Low Carbon Steel *St-37*, *Penetrant Test, Ultrasonic Test*