

**Uji Kekerasan pada Lapisan Las SMAW (*Shielded Metal Arc Welding*) Media Plat Baja dengan Variasi Kuat Arus Pengelasan (*Hardness Test on SMAW Welding (Shielded Metal Arc Welding) Media Steel Plate with Variation of Welding Current*).**

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***ABSTRACT***

Welding is a job that is often used for repair and maintenance. Welding that is often used in the construction world in general is Shielded Metal Arc Welding (SMAW). The importance of hardness testing carried out on steel plate material is to find out the tanpa pengelasan of the hardness of the weld layer that will be used to coat a material. The purpose of this study was to determine the hardness value of the steel plate weld layer. This type of research uses experimental research. The object of this research is the hardness value of the steel plate welding layer. The result of the research obtained by the researcher is that the variation of current strength affects the value of material hardness. The higher the current used for welding, the higher the hardness value produced. The specimen by welding has a higher hardness value than the tanpa pengelasan specimen, where the highest hardness value in the welding specimen is 3269.6 HV while the highest hardness value in the tanpa pengelasan specimen is 2018.2 HV. Based on these results it can be concluded that welding is recommended for rewelding or repair, this is useful for increasing the life of a component and can prevent wear. The results of the microstructure observation showed that there was no defect on the surface of the weld either spots, spots or cracks.

***Keyword:*** *weld seam, hardness test, microstructure*