

Development of Gas Pressure Welding Method Applying Hydrogen Gas

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Gas pressure welding (GPW) is one of the solid phase welding methods. This method is very commonly adopted for rail welds and steel bar welds in Japan. However, it is worried about that supply of acetylene gas, which is used as fuel gas in GPW system, will be stopped due to reduction of demand. Moreover, a large volume of CO₂ gas is generated in GPW process, because acetylene gas is a kind of hydrocarbon. Therefore, we promoted a study to develop a new GPW method applying hydrogen gas in order to continue the use of GPW in the future. This paper describes this newly developed GPW method.