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Oxy Cutting for Mild Steel Response to Cutting Gap Using the Taguchi Method—An Experimental Study

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**Abstract:**

Oxy-fuel cutting uses oxygen and fuel gases to cut and weld metals. A cutting torch is used to heat a metal to its kindling temperature. Computer Numerical controlled oxy cuts thick materials and is adapted for multi-axis cutting. Furthermore, the technique allows prospects for intricate welding layers that are considered to be difficult. The Taguchi method is functionally used to determine significant factors to ensure the best possible conditions. The orthogonal array L9 that is simple is used in the method. Flame cutting requires a careful balance of the parameters, which are the nozzle gap, feed rate, oxygen pressure, and the layer. The process characteristic was drawn from the experimental data to obtain the optimum parameters.