

## **AN APPLICATION OF TAGUCHI'S METHOD FOR OPTIMIZATION OF PROCESS PARAMETERS: A CASE STUDY OF CAST IRON SAND CASTING**

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### **ABSTRACT**

The OBJECTIVE of the research is to apply Taguchi's method for optimization of the process parameters of cast iron sand casting using.. An attempt has been done to obtain optimal settings of the green sand casting process in order to produce the optimum quality characteristics of the cast iron sand casting. The process parameters considered are moisture content, green strength, permeability number and mould hardness number. The effect of selected process parameters and its levels on casting defects has been studied and the subsequent optimal settings of the parameters have been obtained using Taguchi's parameter design approach.

**KEYWORDS:** Taguchi's, Green Sand Casting Process, Cast Iron Sand Casting, Permeability Number and Mould Hardness Number