

A REVIEW ON OPTIMIZATION OF GATING SYSTEM IN METAL CASTING

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ABSTRACT

In the modern period, there a requirement for casting units & foundry to deliver components with less rejection rate i.e. short lead time. The gating framework is assuming essential part in the field of quality. So optimization of gating framework in metal casting delivers the error free components. The principle motivation behind optimization of gating framework is expanding yield of cast items & overcome the defects like shrinkage, gas porosity, slag, inclusion, etc. Many researchers has been studied on optimization of gating system on the basis of Taguchi method, Numerical Simulation, Mold flow Software, Gradient Search Method, Genetic algorithm technique and so forth to diminish the defects. The target of this paper that improper design of gating framework and riser system result in internal shrinkage which is a major defect in cast product. So good design of gating system reduces defects and increase yield.

KEYWORDS: Metal Casting; Optimization of Gating Design; Optimization Technique; Casting Defects