

Defect Depth Detectability in Austenitic Stainless Steel by Lock in Thermography

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Abstract

In this paper, we explore the defect evaluation in austenitic stainless steel using lock in technique and the effect of modulation frequency on the defect detectability in stainless steel. The simulation studies has also been carried out and compared with experimental values. A review of international literature indicates that while such studies have been attempted on materials like Perspex and composites, studies on austenitic stainless steel like AISI 316 have been limited. Austenitic stainless steels are widely used in the nuclear and other process industries. The principal structural materials for the 500 MWe Fast Breeder Reactor being built at Kalpakkam, India is austenitic Stainless Steel type 316LN and 304LN.

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