The Study of detection of Micro Defect Using Multi Ultrasound Infrared Thermography

by Man-Yong Choi*, Hee-Sang Park** t , Jeong-Hak Park* , Koo-Ahn Kwon* and Won-Tae Kim***

* Safety measurement center, Korea research Institute of Standards and Science, Korea, mychoi@kriss. re.kr.

Korea Research Institute of Smart Material and Structures System Association, Korea, m55nring@naver.com *Department of Mechanical Engineering, Kongju National University, Korea, kwt@kongju.ac.kr

Abstract

We tend to have increased utilization of the non-destructive inspection method using infrared thermography. Any ultrasonic methods of various tests, and are mainly used as a method of inspecting a defect of a small size infrared thermography. An infrared thermography is mainly used as a method for inspecting a defect of microscopic size. Existing ultrasound, infrared thermography method, was mainly used for one of the energy incident apparatus. However, the larger the size of the inspection object, a problem occurs to the defect detection. The utilizing plural ultrasound infrared thermography inspection techniques to the energy source into two or more in order to solve this problem. The results of the experiment, when the advancing a plurality of ultrasonic examination, the influence is present in the displacement of the actual specimen. It was possible to confirm the correlation between the defect detection with the displacement of the test specimen.