

## Ultrasonic Testing of Butt Weld Joint by TOFD Technique

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**The aim of the article was to check the internal defects in the butt welded joints by non-destructive TOFD (Time of Flight Diffraction) technique. Subsequently, the macrostructure from the defect indication site was evaluated and assigned to the TOFD ultrasound indication. Basic knowledge of ultrasonic TOFD testing are described in the theoretical part of a submitted paper. Ultrasound technique TOFD is non-destructive method that can detect internal defects inside test material without damaging it. It is a reliable method for detecting mainly flat internal defects such as incomplete root penetration, lack of fusion, etc. Ultrasonic test procedures and test results obtained in non-destructive testing of butt weld are shown in experimental part. Evaluation of the ultrasonic TOFD testing results, its advantages and disadvantages are described at the end of this article.**

**Keywords:** Internal defects, Butt welded joints, TOFD, Non-destructive testing.

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