

New Development of Residual Stress Measurement

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Summary

In this paper, some applications of residual stress measurement in engineering material and structures are introduced. First, some advanced measurement technologies are described like drill hole, residual strain gauge and digital image correlations. Second, the manufacture stresses are explained. Finally, the typical measurement results about the manufacture stress are provided, including: residual stress of integrated composite T-section structures, residual stress of adhesive joint, residual stress of bending tube, residual stress of fiber interface. These results will play an important role in designing and evaluating of advanced material and structure.

