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A combined experimental and numerical examination of welding residual stresses

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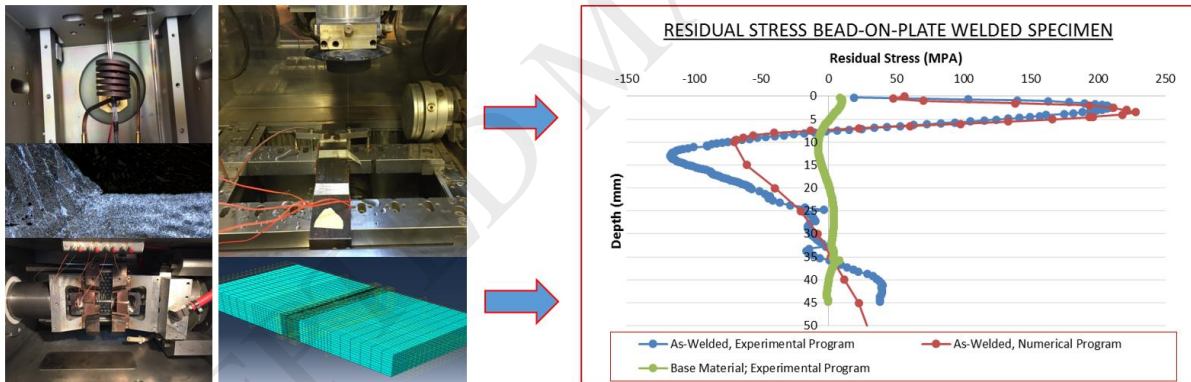
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Graphical abstract



Highlights

- Experimental procedures to obtain material properties of S355G10+M base material.
- Finite element simulations of residual stress formation in bead-on-plate welded specimens.
- Through-thickness residual stress validation by means of the crack compliance method.
- The implementation of phase transformations during cooling in weld simulations.

Abstract

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