Current Research Topics on High-Strain Rate Deformation

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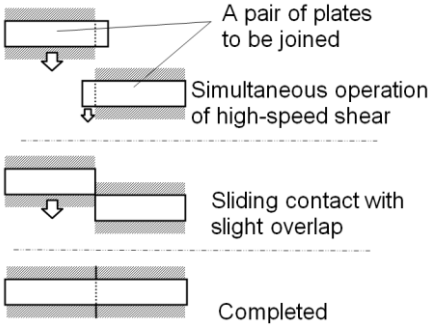
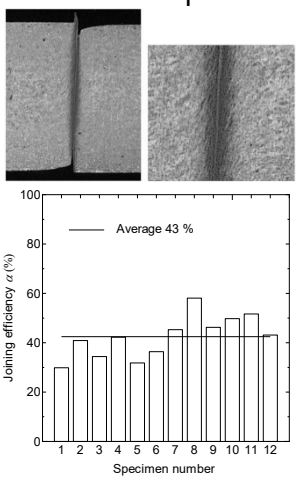
Impact Joining of Similar and Dissimilar Metal Plates

(Japanese Patent: Publication number P2016-078061A, Date: May 16, 2016)

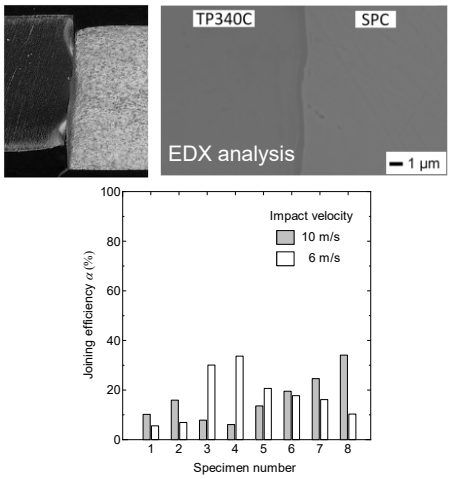


Both activated surface layers created by high-speed shear are utilized for joining at their edges.

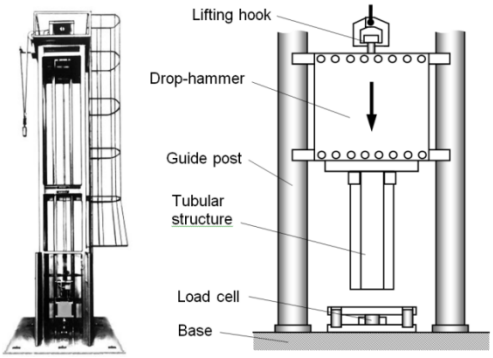
Mild steel plates

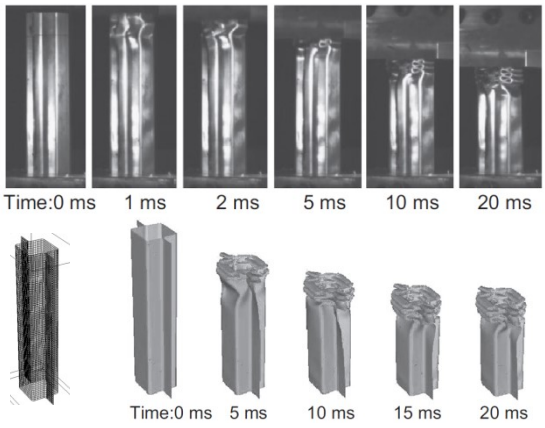


Pure titanium and mild steel



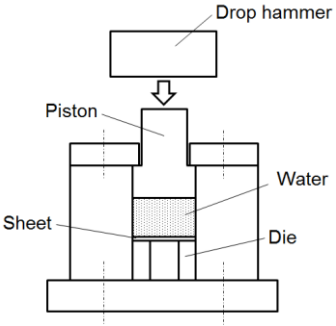
Impact Collapse Behavior of Tubular Structures



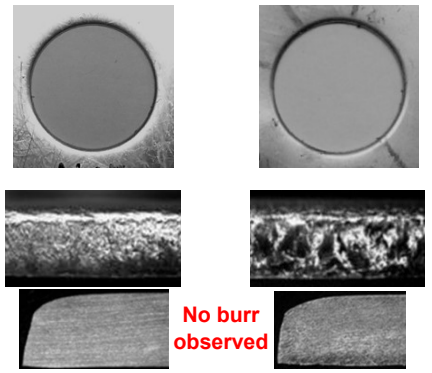


Impact collapse test and numerical simulation are conducted for optimization of strengthening structure.

High-Speed Blanking Using Impact Hydraulic Pressure



Very high hydraulic pressure by hammer impact is used for blanking of sheet.



A5052, 1.0^{t} TP340, 1.0^{t} CFRP, 0.9^{t}

Square hole (A5052, 1.0^{t})