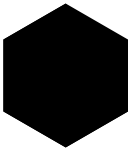


Product Development



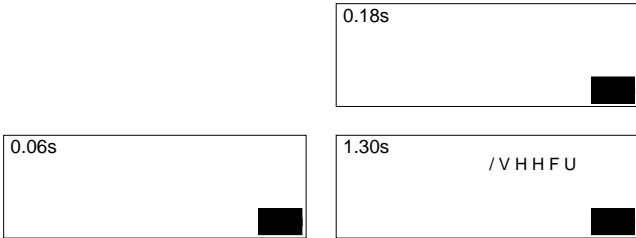
We develop the ingenious technologies and products for welding and joining to offer customers utilizing JFE's steel products with assurance and efficiency.

### Welding & Joining Technologies for Steel Sheets

### Welding & Joining Technologies for Steel Plates & Pipes

Intelligent Spotwelding, Pulse Spotwelding, Single-Side Spot welding, adaptive controlled spot welding and remote laser welding technologies are developed as the advanced welding technologies. Furthermore, numerical simulation technologies for analysis of welding process and weld joint strength are developed.

Innovative welding and joining technologies (various types of arc, electroslag, laser beam, etc.) for thick plates and pipes are researched and developed for customers to use JFE's products with confidence.



### Technology for Safety Assessment & Analysis

In order to improve the safety of welded steel structures, we propose steel material development and application technologies utilizing fatigue and fracture assessment and analysis techniques.