



2500kN servo-hydraulic fatigue test machine

Instron 8806 high-capacity testing machine

Servo-hydraulic mechanical testing machine capable of static loading to $\pm 3000\text{kN}$ and cyclic loading to $\pm 2500\text{kN}$.

Features and benefits

- Allows cyclic loading to be applied with constant or variable amplitude with precisely tailored loads
- Highest load rate of TWI's fatigue testing machines; TWI possesses other test machines ranging in capacity from 350kN to 1700kN
- The fatigue performance of welds is affected by specimen size; larger specimens give a lower fatigue strength. The ability to test at or close to the full scale of components subjected to cyclic service loading is therefore important in establishing the true fatigue performance

Some applications

- Replication of larger components in test environment giving better fatigue understanding
- Full-scale testing for larger range of components
- Improved understanding of variable amplitude fatigue
- Testing parts exposed to vibration and movement, such as those used in offshore oil and gas, offshore wind, rotating machinery, transportation, bridges, ships and submarines

Technical specification

- Peak cyclic load capacity of $\pm 2500\text{kN}$
- Maximum static load capacity of $\pm 3000\text{kN}$
- Hydraulic jaws able to accommodate plate samples up to 100mm thick and round specimens with 10–75mm diameters
- 8800MT controller
- Frame stiffness exceeds 4400kN/mm
- Operating pressure of 207 bar

