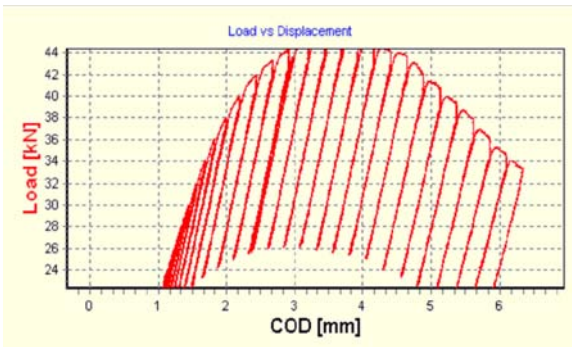


Application Software Packages

DION_{CRACK} - Fracture Toughness Testing

in accordance with ASTM E 1820, E 561, E 399 and E 813.

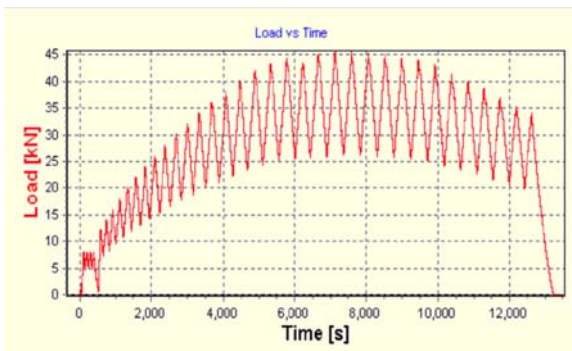
This application package lets you perform elastic-plastic fracture toughness tests on standard compact tension and bend test samples. The package includes pre-cracking capability. Single specimen method.



DION_{KIC} - K_{Ic} and Plane Stress Fracture Toughness Testing

in accordance with ASTM E 399-90.

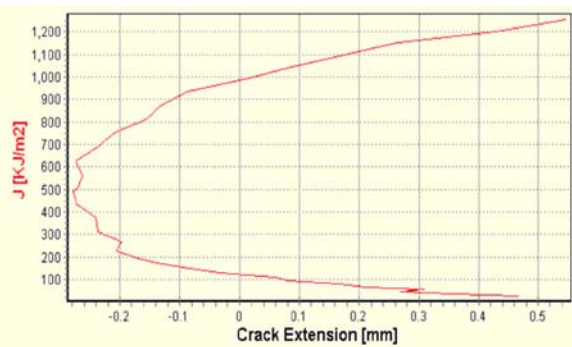
This application package lets you perform plane strain and plane stress toughness tests on standard compact tension, disk compact tension, bend, and middle tension test samples.



DION_{R-CURVE} - R-Curve Determination

in accordance with ASTM E 561-94

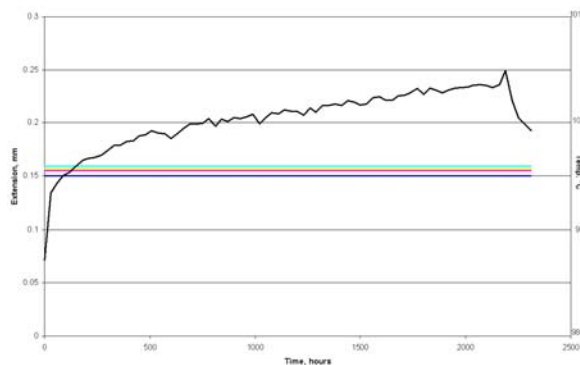
For the determination of resistance to fracturing of metallic materials by R-curves using either the center-cracked tension panel M(T), the compact specimen C(T), or the crack-line-wedge-loaded specimen C(W), to deliver applied stress intensity factor, K , to the material. R-curve is a continuous record of toughness development in terms of K_R plotted against crack extension in the materials as a crack is driven under a continuously increased stress intensity factor, K .



DION_{CREEP} - Creep Testing

in accordance with ASTM E 466.

For data sampling of up to 8 creep testing machines of: Force, deformation, temperature (three zones) and time. The creep testing software and hardware package scans each test machine regularly to read thermocouples, extensometers and crack growth voltages if available; store them on a logarithmic time scale; check test start and termination activities. The test types available are stress rupture test, creep strain test and creep crack growth.



w+b

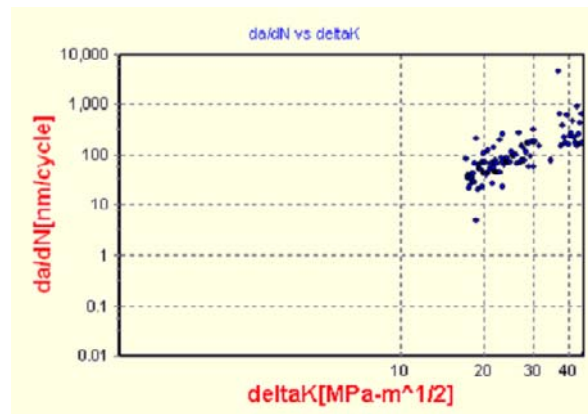
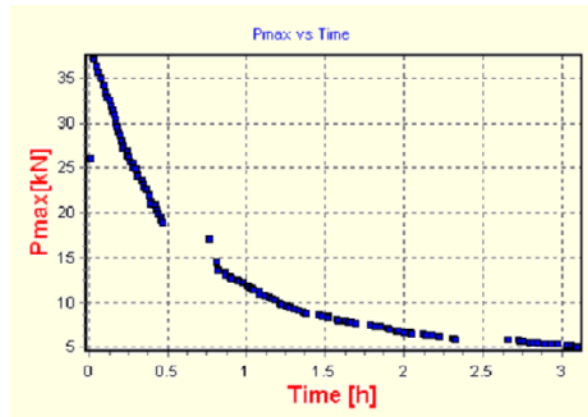
Application Software Packages

DION ΔK - Fatigue Crack

Growth Testing

in accordance with ASTM E 647.

for measurement of fatigue crack growth rates to express results in terms of the crack-tip stress-intensity factor range (ΔK), defined by the theory of linear elasticity. This application package covers the determination of steady-state fatigue crack growth rates from near-threshold to K_{max} controlled instability using compact tension (CT) or 3 point bend (SENB3) specimens.



DION_{HIGH} - High Cycle Fatigue Testing

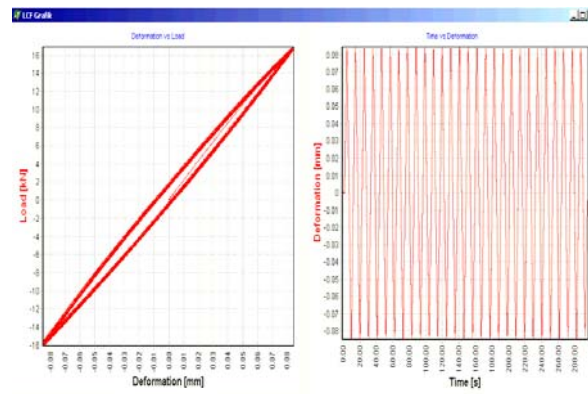
in accordance with ASTM E466.

enables to perform constant amplitude high-cycle fatigue tests on constant cross-section test specimens.

DION_{LOW} - Low Cycle Fatigue Testing

in accordance with ASTM E606.

Enables to perform low-cycle fatigue tests on constant cross-section test specimens for the determination of fatigue properties of nominally homogeneous materials by the use of uniaxially loaded test specimens.

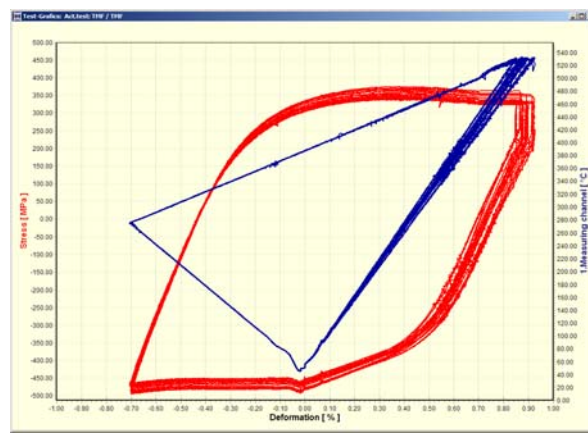


DION_{TMF} - Thermo Mechanical

Fatigue Testing

in accordance with the European Code of Practice for Strain Controlled TMF Testing.

For standard practice for strain, force or stress-controlled thermo mechanical fatigue testing. This package covers the determination of TMF properties of materials under uniaxially loaded strain, force or stress-controlled conditions. No restrictions are placed on environmental factors such as pressure, humidity, environmental medium and others.



w+b