

Hydrogen Embrittlement Test Systems

CAPABILITY SHEET - SUSTAINED-LOAD + SSRT + IN-SITU HP-H2 - ENGINEERED TO ORDER

THE SYSTEM

WHAT	Hydrogen embrittlement test systems - the machines that make engineering's quietest failure loud, on a bench, before it happens in service.
OUR ROLE	Neometrix engineers the frames, stations, fixtures, autoclaves, gas handling, instrumentation and controls, then installs, verifies and supports.
STATUS	Engineered to order; quoted against a hydrogen de-embrittlement test-equipment requirement. No delivered system is claimed.

THE MACHINES

SUSTAINED LOAD	F519-pattern multi-station banks - notched specimens plated with the batch, held at high load for the 200-hour class, per-station break detection.
SSRT	G129-pattern screw frames pulling at 10^{-6} per second class rates - days-long tests in environmental cells, ductility indexed against air.
IN-SITU HP-H2	G142-pattern autoclaves - specimens loaded through sealed pull-rods in hydrogen at hundreds of bar; tensile, slow-strain and fatigue in the gas.

THE RULE

DELAYED FRACTURE	Hydrogen dissolves into steel, gathers at notches, and waits - parts pass every test, then break under steady load days later.
TIME PLUS LOAD	The test gives hydrogen exactly what it needs - time under load - where failure costs a specimen instead of a structure.
THE RECORD	Per-station logs, timestamped break events, verified loads and rates - in a delayed-failure discipline, the record is the product.

DISTINCT & HONEST

THE HYDROGEN HOUSE	The materials wing of the family - beside the delivered burst, leak and component machines and the cycling facility, on the same HP-gas discipline.
OUR FRANCHISE	Frames, stations, fixtures, autoclaves, gas handling and controls are ours; reference specimens, load cells and sensors are bought-in certified.
ENGAGEMENT	Send the specimens, the standards and the environments to sales@neometrixgroup.com for a clause-by-clause compliance matrix in two working days.

DEFENCE PROGRAMMES DESK

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