NEOMETRIX DEFENCE NMX-AET-109

Acoustic Emission Test Station

CAPABILITY SHEET · A FLAW SPEAKS ONLY WHILE IT IS LOADED. · QUIET PRESSURISATION, SENSORS ON THE W

THE ONE IDEA

PRINCIPLE	A flaw speaks only while it is loaded.
WHY IT MATTERS	A crack that does not grow makes no sound. When the load rises and it grows by a small step, a burst of stress wave runs to the wall, where a sensor hears it.

THE STATION

CELL AND CRADLES	A closed test cell with a guard door and interlocks, and padded cradles that carry the vessel without rubbing.
QUIET PRESSURISATION	A low-noise skid with an accumulator and an isolation valve, so that the pump can be shut off during a hold.
SENSORS	Resonant sensors on held mounts, spaced from the measured decay of the wave, each tried with a pencil-lead break before and after the run.
RECORD	An acquisition chassis that records every sound with its time, its size and its pressure, places it on the wall and sorts it into clusters.

THE METHOD

ORDER	Duty, quiet pressurisation, sensors, listening, locating, build and prove. The quiet and the sensor check are the two that a quick job skips.
LIMITS	Pressures, rates, times and distances come from the customer's procedure, and are not printed here.

CONFIGURATIONS

CYLINDER CELL	A cylinder test cell: a fixed, guarded cell for cylinders that are out of service.
PORTABLE SET	A portable in-situ set for cylinders left where they are, loaded in steps from the system's own supply.
VESSEL SET	A vessel and pipework set with more channels, for larger vessels and long runs of pipe.

STANDARDS & SCOPE

REFERENCE	Public references: ASTM E1419, ISO 16148, EN 14584 and ASTM E976, named by designation only.
SCOPE BOUNDARY	It is the acoustic emission test station: not an inspection system, not a requalification line and not an expansion test machine.
STATUS	Neometrix engineers acoustic emission test stations to order, and no delivered acoustic emission test station is claimed.

DEFENCE PROGRAMMES DESK

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