

CVM™ NDI

BY STRUCTURAL MONITORING SYSTEMS

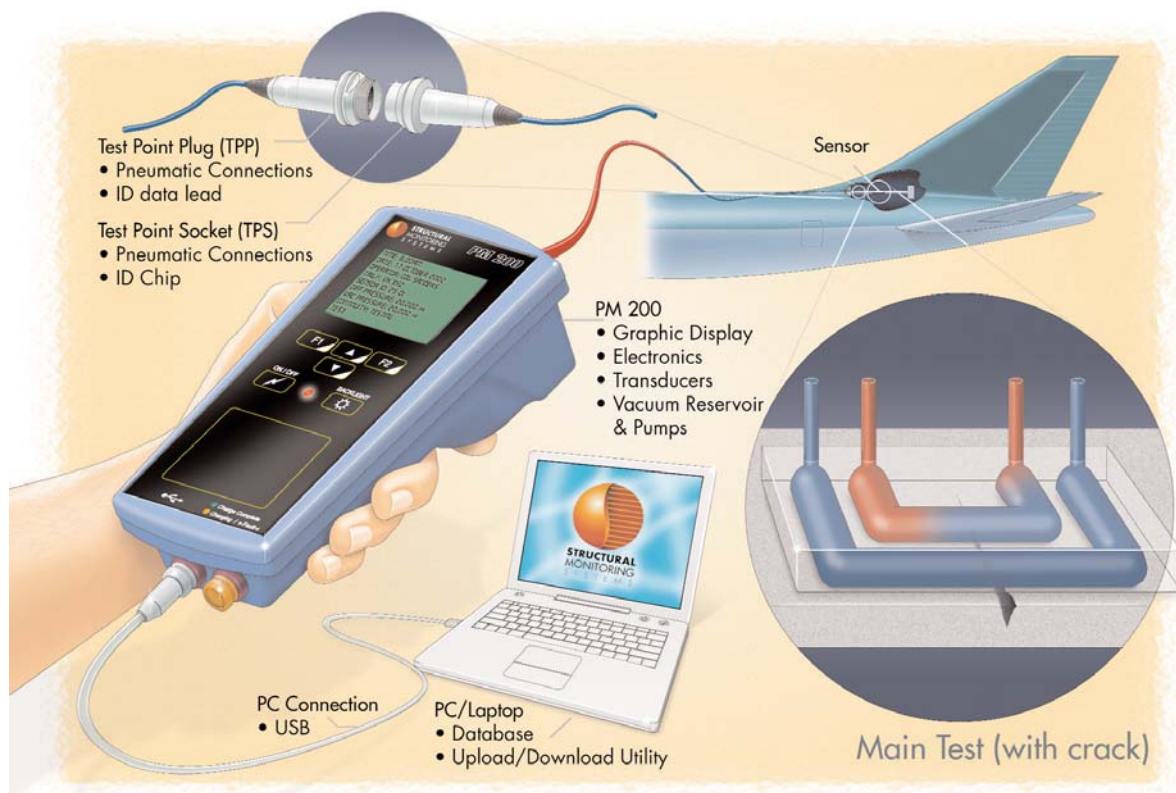


Keeping Aircraft out of the Hangar

- CVM™ Sensors permanently installed
- No strip / re-build required for crack inspection
- Inspection in minutes at base or in-field with PM200
- Self-checking system - no false negatives or positives
- Measurement not skill dependent - minimal training
- PC based data management software included
- Simple 'crack / no-crack' diagnosis



PM200



Self-adhesive polymer CVM™ sensor(s) are applied to the area(s) of interest and are interrogated with the portable PM200 via an easy access Test Point Socket. Tail number, sensor ID and baseline

measurements are stored in the Test Point Socket and are easily downloaded along with the inspection measurement via USB to a PC/Laptop database. The pneumatic channels (tubing and sensor galleries) are

checked automatically before each measurement for blockage. If a crack has breached the sensor, the PM200 will give a reading significantly higher than the baseline (install) reading.

Qualification of CVM™ for use on Aircraft:

CVM™ is a patented technology that has been trialled on a variety of military and civil aircraft over the past 5 years. These trials have allowed a robust and durable sensor material to be developed as part of the qualification program. The ability of the sensors to detect small cracks has been established through Probability of Detection trials under the guidance of the SANDIA Laboratories and FAA.

In March 2007, Boeing agreed to include CVM in 'Common Methods for NDI Manual'. This means that airlines can develop Alternative Means of Compliance for specific inspections that will give them significant time savings. A measurement with a PM200 device will take less than 10 minutes compared with up to

120 man-hours for an inspection which requires strip and re-build.

Airbus are using CVM™ sensors on the A380 Full Scale Fatigue test and have put the sensors through a series of environmental trials including exposure to extreme temperatures and a range of aviation contaminants.

SMS is working with several airlines towards implementing CVM as part of their maintenance and inspection regime. Particular interest has been for sensors to be installed in hard to access locations that are very time consuming and difficult to inspect with traditional NDI techniques. Programs are also in progress with several military operators and regional jet manufacturers.

In Australia, the office of the Director General Technical Airworthiness (DGTA) recently conducted a review of the Company's Quality Management System and CVM™ products, and has determined that CVM™ is a suitable and acceptable structural integrity inspection technique for application to Australian Defence Force (ADF) aircraft. This endorsement is an important step forward as it clears the way for the evaluation of specific applications of CVM™ technology on Australian military aircraft, for improved fleet availability and reduced maintenance costs.



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Patented in Australia (Au) 673740
USA (US) 5,770,794
Europe (EU) EP 0 700 510 B1
Applications filed in 24 Countries



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