

CVM™

SMART SENSOR SOLUTIONS

Airframe Crack Detection Compliance

Why CVM™?

LESS DOWNTIME MEANS MORE FLIGHT REVENUE

Comparative Vacuum Monitoring (CVM™) smart sensors significantly reduce the time and labor maintenance crews spend monitoring and inspecting airframes for cracks. In what used to take days in the hangar now takes minutes at the gate.

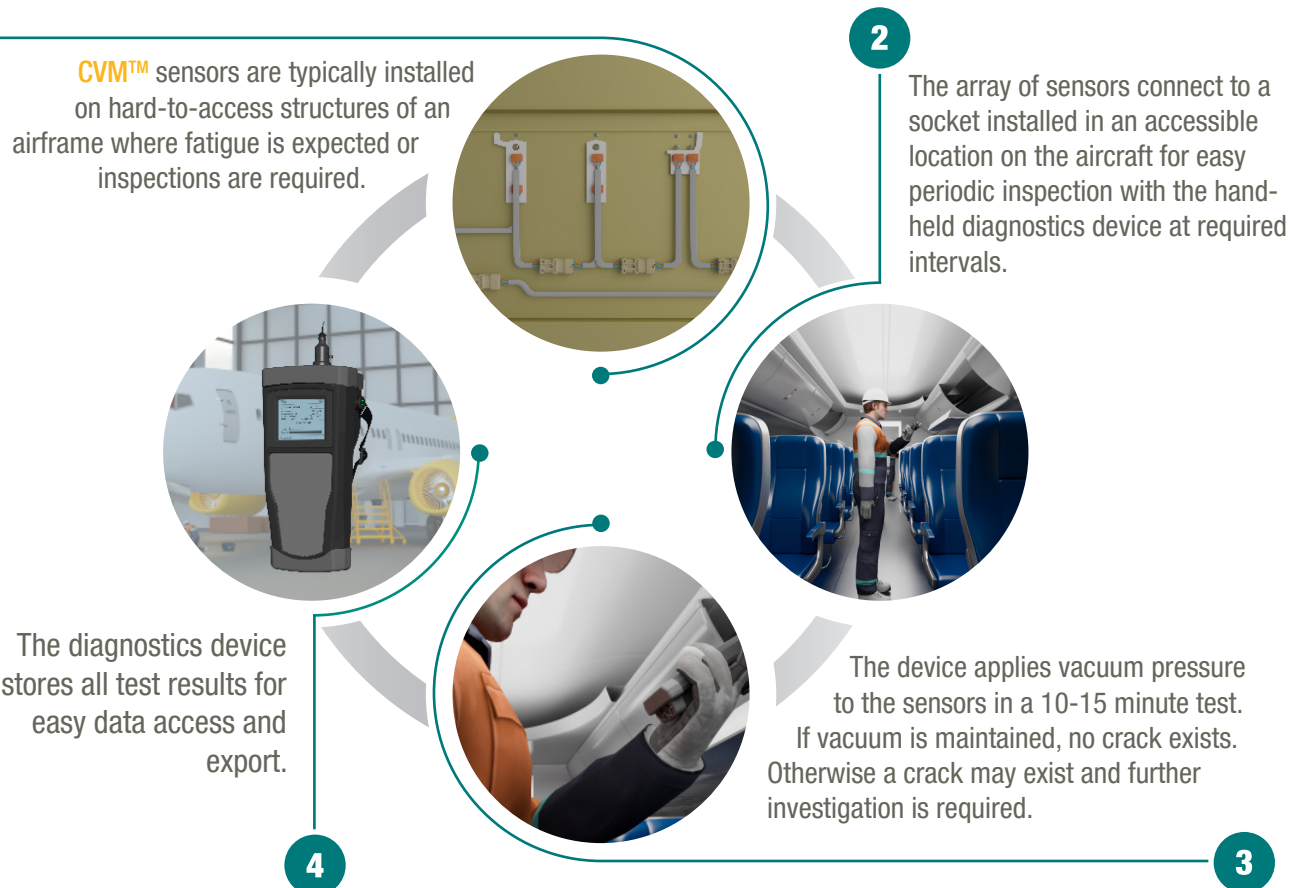
Revolutionize your maintenance program and replace costly inspections at heavy and out-of-sequence checks, and restore thousands of flight hours back to the network across your entire commercial fleet each year.

CVM™ is the first FAA certified, non-destructive, fail safe at-the-gate structural monitoring solution for achieving condition-based maintenance.

How Does it Work?

CVM™ technology involves installing smart sensors to vulnerable airframe structure where damage is anticipated to occur. Using a PM200 hand-held diagnostics device, maintenance staff simply connect to the aircraft's CVM™ sensor arrays to monitor and detect if surface imperfections exist or if there's a loss in structural integrity.

CONFIRMING AIRWORTHINESS HAS NEVER BEEN EASIER



CVM™ Sensors Generate Significant Value for Airlines

✓ CONDITIONS-BASED MAINTENANCE

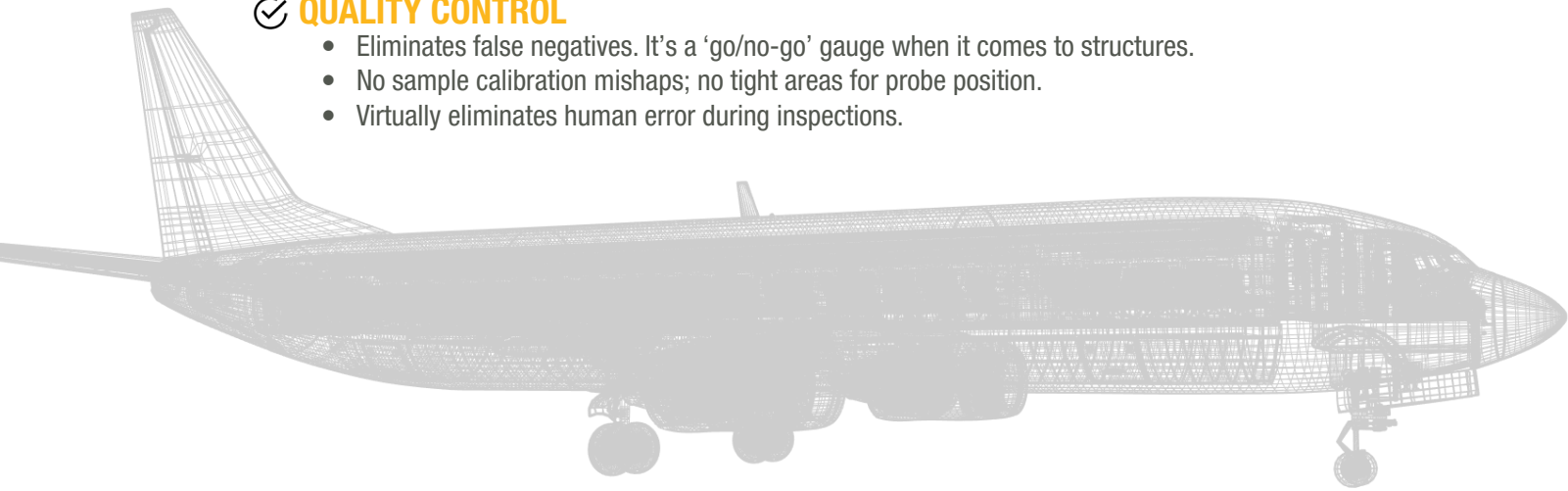
- Ground-breaking technology to broaden the maintenance program, shrink the maintenance footprint and give significant 'green time' back to the operator.

✓ MAINTENANCE ADAPTABILITY

- No time wasted. Work card becomes easily managed.
- Future changes and updates enhance the maintenance program in many ways.

✓ QUALITY CONTROL

- Eliminates false negatives. It's a 'go/no-go' gauge when it comes to structures.
- No sample calibration mishaps; no tight areas for probe position.
- Virtually eliminates human error during inspections.



✓ ENGINEERING

- Allows engineers to effectively mitigate impact of future Service Bulletins, FCDs, and new fatigue areas.
- Sensors can be designed and adapted to monitor almost any surface area of concern.

✓ SAFETY

- Enables elevated inspection frequencies, with little to no impact on the day-to-day operations.
- Eliminates false negative readings, removing the significant rework of and open-up for no crack verification and compliance

✓ MAINTENANCE PLANNING

- Allows planning to connect to the aircraft without impacts to flight or maintenance operations.
- Enhances flexibility of high-frequency, low-impact inspections.
- Saves time, and reduces workload conflict, and improves the general flow of the visit.



950

Flight Hours Restored



111

Flight Days Gained



426

Labor Hours Avoided

PROJECTED ANNUAL APB APPLICATION BENEFITS ACROSS 737NG FLEET OF 71 AIRCRAFT

Source: Delta Air Lines

Comparative Vacuum Monitoring (CVM™) - Smart Sensor Solutions

Airframe Crack Detection Compliance



PLAY VIDEO

Certifications

APPLICATION	CERTIFICATION	AIRFRAMES
Aft Pressure Bulkhead Installation and Inspection Using CVM™	Service Bulletin (Pending)	B737NG: (737-600, 737-700, 737-800, 737-900)
Center Wing Box, Front Spar Shear Fitting Inspection Using CVM™	737-57-1309 Rev 1	B737NG: (737-600, 737-700, 737-800, 737-900)
Intelsat (Gogo) Wi-Fi Antenna CVM™ Installation	FAA STC ST04103NY	B737-800 Series

*The FAA published an Issue Paper (IP) on Structural Health Monitoring that identifies the use of CVM™ to reliably detect airframe damage for compliance. The IP, in conjunction with our pending APB certifications, pave the way for future aircraft applications.

Connect with the Team

Interested in learning how CVM™ sensor solutions can benefit your commercial fleet? Visit CVM.aero to connect with our team to learn more.



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