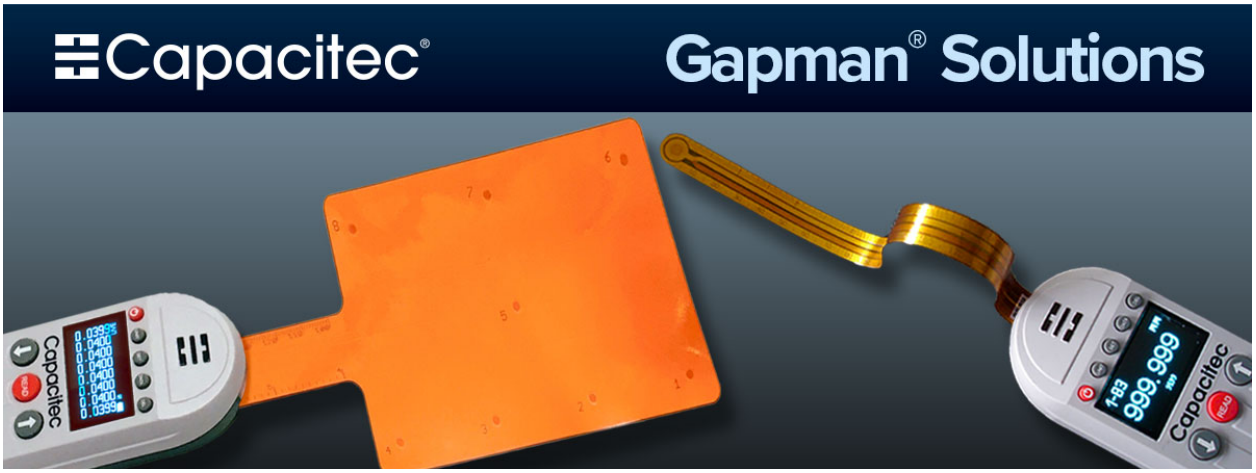


Aerospace is a major market for Capacitec's non-contact displacement, gap measurement and portable gap sensing systems. Our customers build/rebuild commercial and military aircraft and engines. For over 35+ years we have worked closely with manufacturing and quality engineers as well as R&D to enhance their product designs, production and quality control methods. Capacitec technology replaces mechanical measurement tools such as feeler gauges and go/no gauges with electronic alternatives.

FOR EXAMPLE:

- The GAPMAN® product line provides the capabilities of a high accuracy non-contact "electronic feeler gage" with a built-in data logger, the only way to comply with SPC/Six Sigma product improvements.
- The LiniGage engine eccentricity tool improves rebuild centering of aircraft engines in vertical and horizontal reassembly positions.
- Capacitec's portable blade length measurement system uses "non-contact or contact wands" to measures gaps between fan blades and the engine cowling. These solutions provide you with compelling time/cost reductions and quality enhancements that easily support very rapid payback on your investment

Capacitec Review of the MRO America Exhibition during Aviation week in Atlanta.

Major Applications for Maintenance Repair and Overhaul Include:

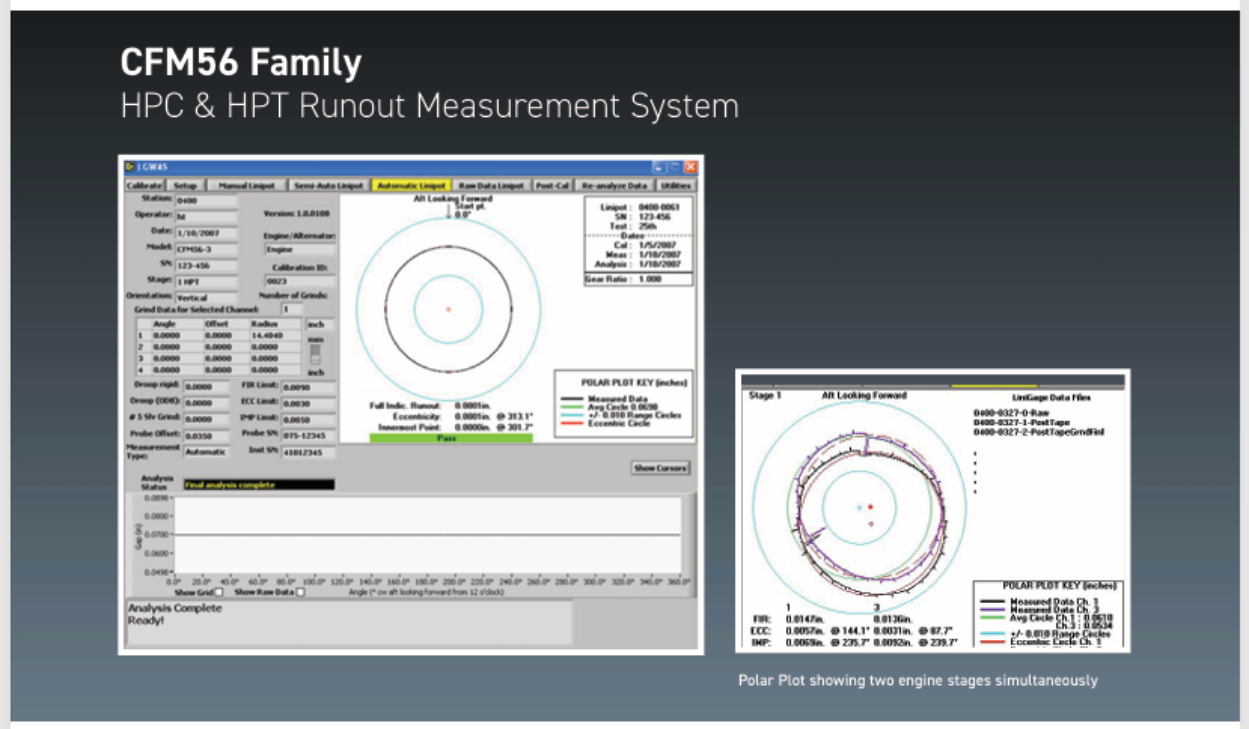
AIRCRAFT ENGINES

- HPC/HPT rebuild eccentricity for CFM56, CF34-10 and others
- Fan blade length and blade tip gap measurement for GE90, GEnx, CF6, RR Trent and others
- High temperature runout and thermal expansion for P&W family 4000 & F135 (JSF) and MTU engines

AEROSPACE STRUCTURES

- Gap measurement for shim selection for:
  - Wing tie plates, skin to frame and frame gaps
  - Gaps in airframe between subsections and mating surfaces
  - Tail section tie plates and horizontal stabilizer gaps
  - Boeing 737, 747, 777x, 787
  - Airbus A220, A320, A321, A350
  - Outer skins/frame fastening for SpaceX, Delta IV launch and other heavy launch vehicles

The Capacitec LiniGage is an Aircraft Engine Rotor Eccentricity Realignment System that is used to set the concentricity of engine rotor assemblies such as the HPC and HPT sections. An 8mm OD non-contact displacement sensor is temporarily attached to the tip of one of the blades with a coax lead, wrapped multiple times around the rotor circumference, typically exiting the engine enclosure through a borescope hole. The rotor is rotated 360° allowing the sensor to measure the gap between the blade tip and the housing inside circumference, while extracting the coax cable. The LiniGage custom software takes displacement values, polar plots the circumferential blade gap to casing ID, and calculates the eccentricity magnitude with its resultant angle. An out-of-spec eccentricity plot then allows the engine rebuild technician to easily identify where to adjust by retorquing case segments into specification while simultaneously creating a permanent quality record. Capacitec's original LGDAS (DOS-based) system introduced in the late 1980s, and the current LGWAS (Windows-based) system supports the CFM and GE families of engines in rebuild centers and during new engine design. LiniGage is designed to help support continued quality initiatives for these aircraft engines. There are more than 100 LGWAS systems currently in operation worldwide at engine manufacturers and MRO rebuild centers.



Get in Touch

To learn more about Capacitec's gap measurement technology and how Gapman's very portable features can benefit your projects, visit our **Website**, or reach out to our application engineers. We're here to assist you in harnessing the power of our advanced sensing solutions and to optimize your operations. Contact us and discover the difference a Gapman can make.

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