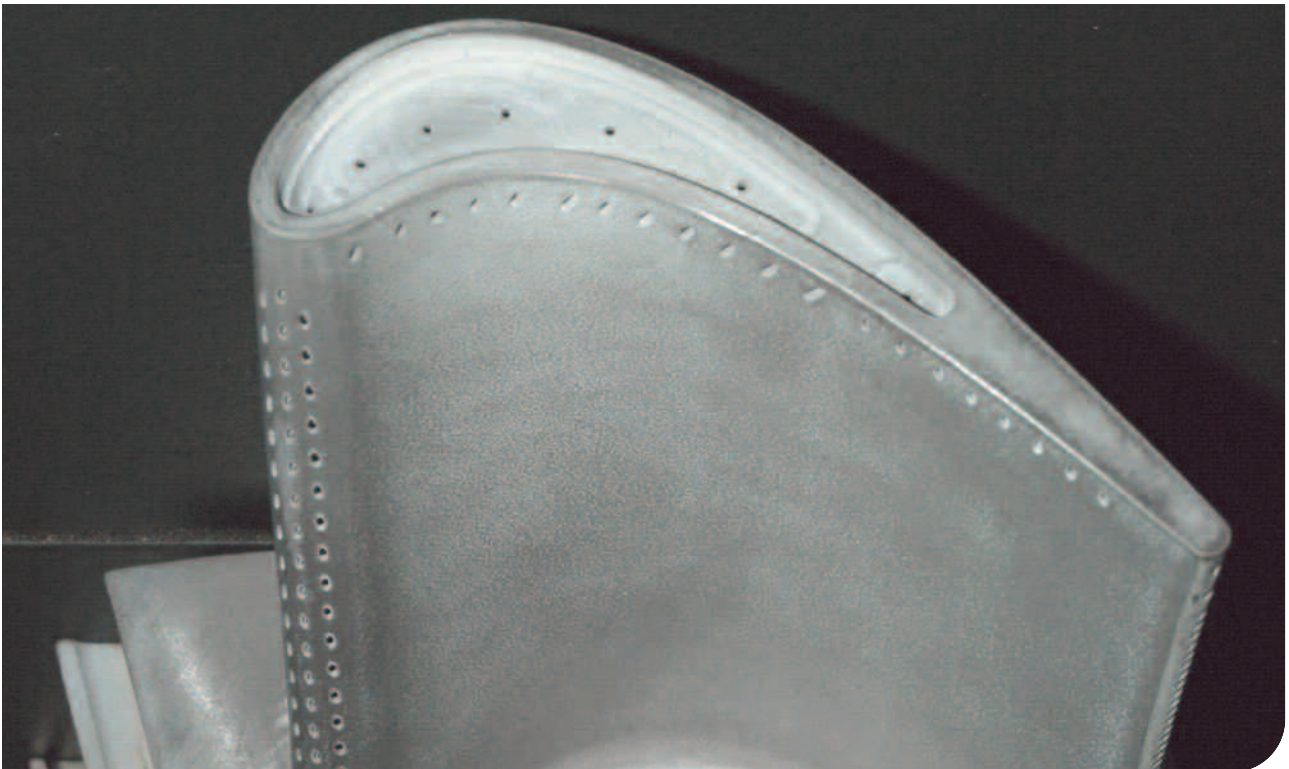


# VINSPEC.

In-situ inspection of gas turbine blades and vanes.

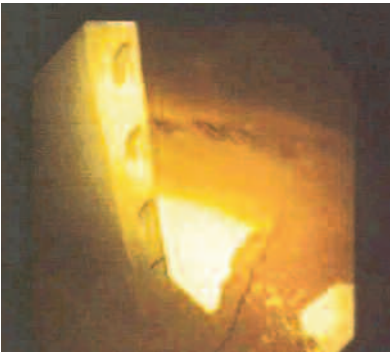


Gas turbines can be opened for inspections. However, it is often possible to save the expenses of both disassembly and production loss. Inspection entrances (diameters 6 to 10 mm) are mostly integrated into the gas turbine housing. Most gas turbine owners have their own endoscope nowadays, specifically for blade inspection through these holes. This method is usually adequate to establish a complete blade failure, missing parts, major damages of blades, vanes and shrouds and

coloring of the blade surface. Once smaller linear flaw indications in blades or vanes are detected, things may be different: "Are we looking at a trivial discoloring or at a real crack in the base material?". The difficult decision must then be made: should we open the housing maybe to find that nothing serious is the matter, or should we continue operating? And if so, for how long? And what is the risk of a possible crash?

## Service

To check and characterize linear flaw indications, detected with regular endoscope inspections, it is possible to verify defect crack depth and crack length. The VINSPEC system enables us to provide you with this service. The inspection is conducted through inspection holes of >6 mm. The instrumentation and the specialists can be on site within 24 hours.



As inspection holes in the gas turbine housing are small, there is no room for two independent non-destructive

inspection tools: an endoscope for visual inspections and eddy current probes for crack detection. VINSPEC is a combination of an endoscope and an eddy current device.

## Benefits

- In case of doubt, endoscopic observation of (linear) flaw indications in blades, vanes or other hot gas path parts in gas turbines enables instant assessment of the character and size of the indication
- The owner can make a well-founded decision to open the entire gas turbine to repair/replace blades, or to leave it in place and postpone repair/replacement to a more convenient time, or even forget about it altogether
- After leaving the blade without repair or replacement there will be a trending possibility (crack progression monitoring)



- Before opening a gas turbine housing for further inspection, you will be sure that the flaw indication is not just a trivial, superficial crack or discoloring effect
- The possibility of rapid deployment of VINSPEC around the world.

## For more information:

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