



Case Study: **High-Speed Imaging** **Inspection Prevents Costly Plant Shutdown**

 **inspectahire**[™]
The industrial inspection specialists


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VISION RESEARCH

The Challenge

A critical industrial system was showing early signs of abnormal vibration, raising concerns about the condition of a high-speed fan and its impellor blades.

Stopping the system for a traditional inspection would have meant expensive downtime and the risk of significant production losses.

The client needed a way to carry out an in-service inspection to identify the cause of the fault – without shutting down the plant.

The Solution

Inspectahire brought together its specialist high-speed imaging expertise with advanced equipment from Vision Research to deliver the inspection safely and effectively.



- A compact C321 high-speed camera was deployed, selected for its small form factor and robust industrial design – making it ideal for use through a restricted inspection port.
- Operating at 1,450 frames per second (fps), the C321 successfully captured detailed imagery of the fan blades rotating at high speed.
- The data allowed engineers to visualise blade movement in real time, identify irregularities, and confirm the early signs of a developing fault.



The Outcome

- The high-speed footage revealed issues that would not have been visible using conventional inspection methods.
- By diagnosing the fault early, the client was able to take corrective action before significant damage occurred.
- Most importantly, the solution avoided an unexpected plant shutdown.

Missing Blade Area

Why Inspectahire

Inspectahire combines decades of inspection expertise with access to the full suite of Vision Research cameras, offering:

- Frame rates from 1,000 fps up to 1.7 million fps
- Resolutions of 1, 4, and 9 megapixels
- Rugged, portable systems suitable for the toughest environments

Our team matches the right camera to the right challenge, ensuring our clients get the insight they need to keep operations running smoothly.



Contact Inspectahire Today!

www.inspectahire.com

Let's Work Together

Whether it's rotating machinery, dynamic processes, or other high-speed events, our team can help you see what others can't.

Contact Inspectahire today to discuss your inspection challenges and explore how high-speed imaging can keep your plant safe, efficient, and online.

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