

6D in 60 Seconds

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ENGINEERING ANSWERS through TESTING & ANALYSIS

In this business you have to get your hands dirty. From the test lab to ocean oil platforms, underground mines, and everywhere in between - we collect, analyze and interpret the data to drive simulation and provide answers to complex and costly mechanical engineering challenges.

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Product Validation: Establishing a Formal Process

A formal product validation process helps ensure that steps are understood, well-defined, documented and rooted in proven fundamentals. Some may strive to validate via testing or simulation alone. Six D recommends a testing *and* simulation approach where real-world operating data (encompassing expected and unanticipated usage scenarios and conditions) feeds and verifies engineering analysis/simulation. In this way models are correlated by matching FEA and test frequencies and mode shapes and ensure that strong operating forces do not coincide with resonance frequencies.

Product Validation Challenges

- Overly Reliant on Technology
- Not Designing for the Real-World
- A Lack of Understanding

This series presents a recommended approach to developing and implementing a product design validation process. We address key obstacles, common pitfalls and provide industry case studies focused on: Rotating Equipment, Rail, On-Road, Off-Highway and Mining.

[Read the Paper](#)

Product Validation: Rotating Equipment



Rotating equipment, with its multiple components and sub-assemblies, is subjected to varying vibrational forces. While certain levels of vibration are inherent to the normal operation of pumps, fans, gen-sets, and similar equipment – sometimes vibration levels become excessive. As vibration increases equipment and supporting structures are susceptible to cracks, fatigue and catastrophic failure putting machinery, production and worker safety at risk.

[Continue Reading](#)

More Examples



Some Say Talk is Cheap... But with us its FREE

Do you have a question or just want to discuss your specific issues? Give us a call - no cost or obligation. If we can offer some advice or recommendations we're happy to do so!

[Contact us here](#)



Check out our Video!

**IN CASE YOU
MISSED IT**

From our previous issues...

Troubleshooting Rotating Equipment. [Read more](#)

[Unattended Testing](#) monitors equipment around-the-clock ensuring that all events are captured and analyzed.

View past newsletters [here](#)

Explore our Web Site!

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