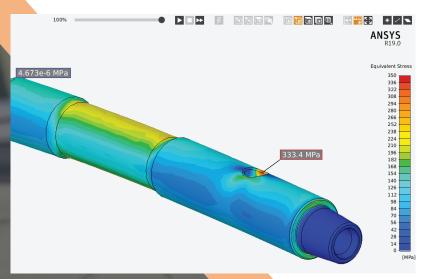
### ANALYSIS

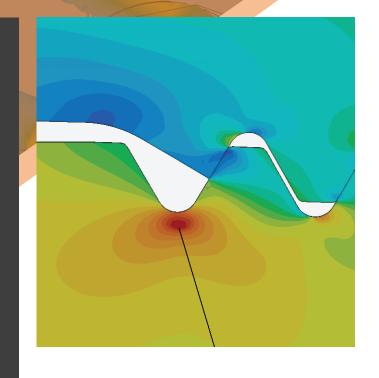
## WHAT IS ANALYSIS?

Rockatek provides a stand-alone simulation and analysis service to our clients. However, the analysis service often goes hand in hand with Rockatek's design and testing services.

Analysis is used to demonstrate product capability and limitations and to highlight failure modes. It is often used to analyse the effects of physical loading, such as axial, bending, torque, pressure, temperature and fatigue. Analysis is conducted in parallel with the design phase, in order to develop concepts that have a high chance of success.

Rockatek's engineers have carried out numerous analysis projects on some of the market's best known downhole drilling systems, in order to increase product performance and reliability.





### **FIRST PRINCIPLES**

Rockatek's analysis ethos always starts with first principles. Simulations are only conducted once the underlying maths and physics have been understood. The simulations are refined to offer realistic and accurate solutions.

### **SOFTWARE**

The team at Rockatek utilise ANSYS FEA Multiphysics Simulation Software. Our Engineers are experienced in all levels of FE analysis.

### **TYPES OF ANALYSIS**

The level of analysis we offer is only limited by the client's requirements. We offer:

- Single component analysis
- Mechanism analysis
- Static or dynamic analysis
- Stress analysis
- Thermal analysis
- Vibration analysis



# ROCKATEK®

**ENGINEERING FOR HARSH ENVIRONMENTS**