

## CASE STUDY: OIL & GAS CHALLENGE



- **Complex, high-precision component**
- **Detailed material selection**
- **Production planning and engineering**
- **Heat treatment advice**
- **High-stress environment**

### Problem

#### *Finding the right material for the job*

Our client designs bespoke downwell tools and uses NTG as their trusted manufacturer. Within this role, we engineer, project-manage, select the material and plan the job based on their designs. Our client asked us to produce a component that would be used in a patented tool. The tool would be used at extremely pressurised locations – under the seabed – so it had to be failsafe. Precision was everything.

The client had specified a material to use for this component. However, upon review, it was clear the proposed material would not withstand heat treatment within manufacturing processes without unacceptable distortion that would leave it unusable.

### Solution

#### *An exhaustive approach to finding the right material*

We needed to find a material that would not only withstand the manufacturing process but would also be able to deal with the atmospheric pressure of a sub-seabed operating environment.

We worked extensively with our laboratory for their advice on material options. We also collaborated with a heat-treatment plant for their input on the shortlisted materials and how they would cope with heat treatment.

### Result

*We eventually found a specific material that would be appropriate for the job – and were able to prove its suitability to our client. The part worked first time and has since gone on to provide ongoing, reliable service.*



If you have any questions, want to discuss your project or get a quote for it, please contact us:

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