

Research and Reduce Your Nitrogen Gas Costs

The Challenge

Our client provides specialist services to the oil and gas industry, always being at the forefront of technological research and development. From the early days of providing geological mapping to aid the exploration of mineral deposits, to the current highly sophisticated drilling techniques, they have led the way in this sector. Their highly secure advanced technology centre based in the East of England has facilities to provide a range of solutions and enables them to test and simulate new drilling concepts and processes within their huge test area.

As a long-standing Maziak customer we were asked to provide a solution for Nitrogen gas that could replace the need for the site to use Bulk liquid that was expensive but critical to their process.

Maziaks' Solution

Key outcomes required:

1. Volume of Nitrogen gas sufficient for a 100 minute continuous use on consecutive days if required
2. Peak event of 425m³/hr at 7bar with a 1% residual oxygen content
3. Packaged solution within weatherproof housing, delivered ready to use—plug & play

Maziak proposed an on-site Nitrogen gas generation system comprising a Parker NITROsource gas generator delivering High Purity Nitrogen gas to a Bauer pressure booster. This in turn feeds into a pack of high pressure storage cylinders with a ready to use 800m³ volume at 300bar pressure and a regulated supply back down to the required working pressure of 7bar.

The whole package is housed within a 6m shipping container fully mechanically and electrically connected with a 250amp distribution board, lighting, ventilation, domestic electrics, cold weather protection and ambient oxygen level monitoring for personnel safety. Driven by an ultra reliable HPC compressor plant and backed by a Maziak service plan, all this equipment is covered for 5 years with an all embracing warranty provided free of charge.

Results

All of the desired outcomes were comprehensively met and the package is now fully operational 24/7 for the site to use whenever required.

1. **Long term cost control** with on site nitrogen gas generation
2. **No more delivery vehicles** and the time and effort required to manage can be put to more productive use
3. **Continuous availability of supply** with on-demand High Purity Nitrogen gas 24/7 whenever they need it
4. **Reduced CO₂ footprint** in line with the business' sustainability targets

