Engineering

Asset Integrity

Protect + Optimize.







Applications

- Brownfield modifications
- Offshore rigs
- FPSOs
- Land rigs
- Facilities + plants

Keeping existing infrastructure safe, reliable and productive.

We combine asset intelligence, integrity engineering and brownfield modification expertise to help customers understand their infrastructure, manage risk and identify opportunities to improve safety, reliability and performance.

From digital asset capture and condition assessment through brownfield engineering, equipment replacement, upgrades and modification, we turn asset insight into action, helping customers protect fit for purpose critical infrastructure while continuously improving how it performs.

Existing assets. Evolving demands.

Energy assets operate in demanding environments where safety, reliability and performance cannot stand still. Changing operational requirements, equipment condition, regulatory obligations and new technologies create an ongoing need to understand, protect and enhance critical infrastructure.

Operators need accurate asset information and informed engineering insight to determine where maintenance, intervention, modification or investment will deliver the greatest value, while managing risk and minimizing disruption to ongoing operations.

As requirements evolve, assets must evolve with them. Integrating new equipment, digital technologies, automation and alternative power solutions into existing infrastructure requires careful engineering to maintain integrity and operational continuity while unlocking new capability.

Asset outcomes that matter

- ✓ **Greater visibility of asset condition**
- ✓ **Better-informed maintenance and investment decisions**
- ✓ **Reduced integrity and operational risk**
- ✓ **Improved reliability and availability**
- ✓ **Extended asset and equipment life**
- ✓ **Reduced obsolescence risk**
- ✓ **Efficient brownfield modifications**
- ✓ **Infrastructure ready for evolving operational requirements**

Understanding

Better asset insight. Better engineering decisions.

Accurate asset information is the foundation of effective integrity management and brownfield engineering. We combine engineering expertise, condition assessment and digital asset capture to understand existing infrastructure, identify risk and give customers the confidence to make informed decisions.

Asset Integrity Management	We develop structured integrity strategies that help customers manage risk, prioritize intervention and protect long-term asset performance.
Condition Assessment	We assess equipment and infrastructure condition to identify degradation, risk and required intervention.
Structural Integrity	We evaluate structural condition, capacity and performance to support safe continued operation and future modifications.
Asset Scanning Capture + Surveys	We capture accurate information on existing infrastructure to reduce uncertainty and provide a reliable basis for engineering.
Digital Twin	We create detailed digital representations of existing assets to improve engineering accuracy, planning and lifecycle decision-making.

Brownfield Engineering

Turning asset insight into action.

Once we understand the asset, we use that insight to develop practical engineering solutions. Our multidisciplinary brownfield teams engineer modifications, replacements and upgrades around the realities of existing infrastructure and ongoing operations.

Brownfield Modifications	We engineer practical modifications that improve safety, reliability, performance and operational capability while minimizing disruption.
Equipment Replacement + Obsolescence Management	We develop replacement and upgrade strategies that address aging or unsupported equipment and maintain operational continuity.
Equipment Integration	We engineer new equipment and technologies into existing infrastructure, managing interfaces and minimizing integration risk.
System Upgrades	We upgrade existing systems to meet changing operational requirements, integrating new equipment and technologies within the constraints of existing infrastructure.

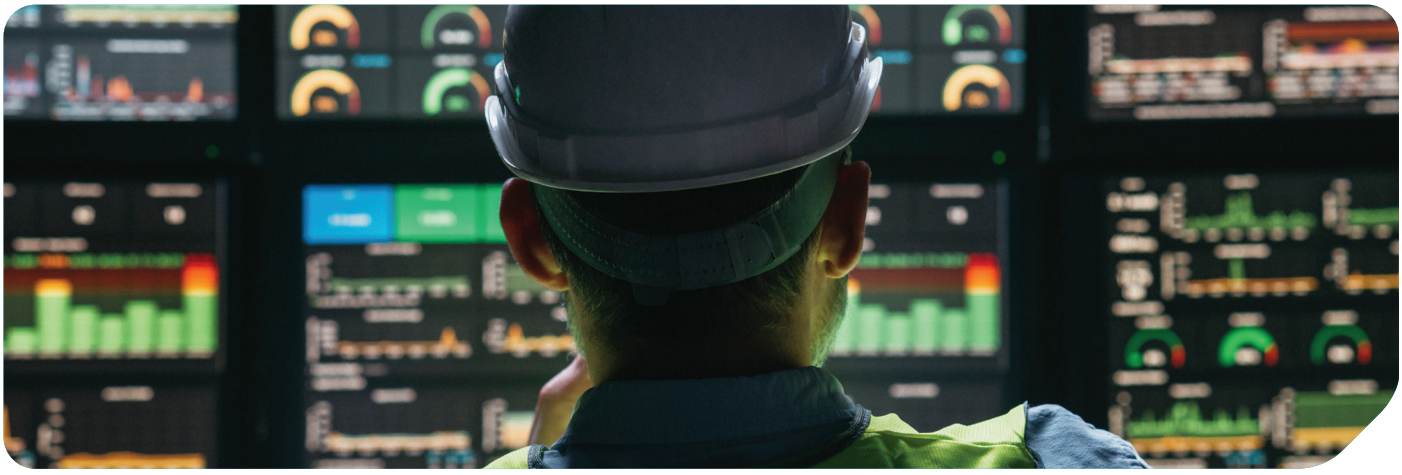


Performance

Optimizing the assets you rely on.

Our engineering support extends beyond individual modifications, helping customers improve reliability, manage integrity and maximize the safe, productive life of existing infrastructure.

Reliability + Performance Improvement	We identify and engineer targeted improvements that enhance reliability, availability and operational performance.
Technology Enhancements	We advise where to apply digital technologies that enhance existing assets, improving operational visibility, reducing personnel exposure and enabling safer, more efficient operations.
Power Optimization	We seek opportunities to modernize asset power systems through emission optimization, grid power and electrification, supporting greater efficiency, reliability and evolving operational requirements.
Life Extension Engineering	We assess asset requirements and develop engineering solutions that support safe, reliable operation for longer.
Integrity Improvement	We translate integrity findings into targeted engineering interventions that reduce risk and protect asset performance.
Ongoing Engineering Support	We provide responsive multidisciplinary aftermarket support as asset requirements evolve.



Why BENTEC?

We turn insight into action
We don't stop at surveys, scans or assessments. Our engineers translate asset intelligence into practical modifications, upgrades and interventions.

Ongoing engineering support
We provide flexible access to multidisciplinary engineering expertise, supporting day-to-day asset requirements, call-off scopes and changing operational priorities.

Built for brownfield realities
We understand the constraints of engineering change into live, operational assets. From existing interfaces and space limitations to access, constructibility and operational disruption.

Digital insight. Engineering application.
Our digital asset capture and scanning capabilities give engineers a more accurate picture of existing infrastructure, reducing uncertainty before modification work begins.

We know the equipment
As an OEM with in-house manufacturing capability, we bring practical equipment knowledge to replacement, integration, upgrades and obsolescence challenges.

Modernizing what already exists
We help customers identify where new technologies, automation, electrification and power optimization can enhance existing infrastructure rather than defaulting to replacement.

Beyond the integrity report
Our multidisciplinary engineering and project delivery capability means we can support customers from identifying an issue through to engineering, modification and execution.



BENTEC
Bold Engineering+Technology

Speak to a BENTEC expert

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