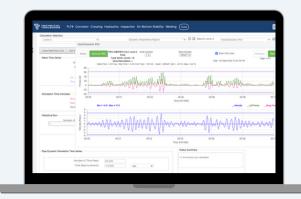


ON-BOTTOM STABILITY

The world standard for subsea pipeline design and stability analysis.



The On-Bottom Stability (OBS) Tool from Technical Toolboxes is a specialized software solution designed to assist pipeline engineers in accurately analyzing and ensuring the stability of subsea pipelines under varying environmental conditions. Subsea pipelines are exposed to complex forces, including ocean currents, wave action, and interactions with the seabed, all of which can significantly affect their stability. The OBS tool equips engineers with the ability to model and simulate these dynamic conditions, ensuring pipelines are securely anchored and stable on the seabed, even in challenging environments. By reducing the risk of pipeline displacement or damage, this tool helps safeguard vital energy infrastructure, preventing costly repairs and potential environmental hazards.

Through the OBS Tool's advanced features, pipeline engineers can perform comprehensive simulations that factor in critical parameters such as soil resistance, pipeline weight, and hydrodynamic forces. The tool's integration with the Pipeline HUB platform ensures that data from different projects is centralized and accessible across teams, promoting collaboration and data consistency. Additionally, the OBS Tool automates reporting and compliance documentation, making it easier to meet industry standards and regulatory requirements. Whether you are assessing new pipeline installations or verifying the stability of existing infrastructure, the OBS Tool provides the detailed insights and decision-making support needed to ensure the long-term security of subsea pipelines.

KEY FEATURES

- Proven Stability & Advanced Simulations Trusted for over 40 years, the OBS Tool calculates 3D wave kinematics and addresses shallow water challenges with batch run simulations, enabling faster, more accurate design assessments
- Optimized Cost Efficiency Reduce CapEx and OpEx by identifying design flaws early and ensuring stable pipelines with realistic weight coating solutions, minimizing expensive corrective actions
- Intuitive Interface & Future-Ready With a user-friendly design, the OBS Tool shortens the learning curve while ongoing enhancements keep your projects ahead of industry needs



OBS APPLICATIONS



Level 1 Analysis

Quickly assess pipeline stability under wave and current loads, including options for cohesive and non-cohesive soils. Ideal for early-stage evaluations to determine if further analysis is needed.



Level 2 Analysis

Comprehensive design tools for pipeline stability in clay and sand environments, supporting batch runs for variables like wall thickness, water depth, and coatings. Optimize design efficiently across multiple scenarios.



Level 3 Analysis

Detailed simulation of environmental conditions using finite element analysis. The system integrates wave force calculations with hydrodynamic modules for in-depth scenario modeling, supporting advanced decision-making for complex conditions.



DNV RP F109 (2011) Absolute Stability Method

This industry-standard method ensures pipelines remain secure under extreme conditions by evaluating hydrodynamic forces, seabed interactions, and pipe weight, helping to meet stringent safety standards.

FIND OUT MORE

Learn more about Pipeline HUB's OBS capabilities and schedule a demo to see it in action.

ABOUT TECHNICAL TOOLBOXES

Technical Toolboxes is the global leader of integrity analytics for pipelines to help solve the growing, complex challenges they face across crossings, corrosion, welding, and more. Our modern software platform provides a simple way to get the most accurate pipeline engineering calculations so that you can increase team productivity and improve compliance while decreasing risk. We enable energy companies to move away from rudimentary calculations and processes to a world of fast, secure, scalable pipeline insights you can trust.

