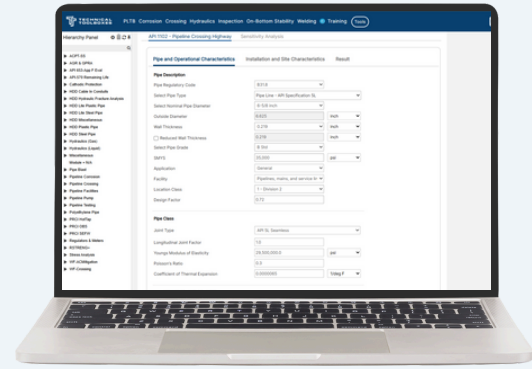


# PIPELINE TOOLBOX (PLTB)



Maximize pipeline engineering efficiency, accuracy, and decision-making with the industry-standard software designed to offer streamlined data management, automated calculations, and compliance

The Technical Toolboxes' Pipeline Toolbox (PLTB) is a comprehensive engineering solution designed to eliminate manual calculations and streamline pipeline workflows across design, construction, operations, and integrity management. With over 250 validated calculations, PLTB replaces spreadsheets with a powerful, centralized platform that ensures engineering accuracy, regulatory compliance, and efficiency.

PLTB simplifies stress analysis, pipeline crossings, hydrostatic testing, and hydraulic modeling, helping engineers quickly assess, plan, and verify pipeline integrity. The tool automates data inputs, integrates with GIS mapping, and allows teams to perform complex engineering assessments with confidence.

From high-pressure transmission lines to complex pipeline crossings, PLTB equips engineers with the tools to solve real-world pipeline challenges while ensuring compliance with PHMSA, DOT, CSA, ASME, and other industry standards. With advanced calculations and built-in AI-powered insights, PLTB enables engineers to move beyond spreadsheets for faster, more precise decision-making.

## KEY FEATURES

- **250+ Pipeline-Specific Calculations:** Solve engineering challenges for both Gas and Liquid pipelines across design, construction, operations, and integrity management
- **Automated Engineering Workflows:** Minimize manual input and data-entry errors with auto-population, quality-checking, and stored data recognition
- **AI-Powered Insights:** Piper AI integration provides automated data analysis, anomaly detection, and predictive insights, helping engineers evaluate next steps and make informed decisions faster
- **Advanced Calculation Functionality:** Batch Run and Sensitivity Analysis allow engineers to simulate multiple design scenarios simultaneously, reducing risk and improving efficiency
- **Regulatory Compliance:** Built-in adherence to PHMSA, DOT, CSA, ASME, and other industry codes
- **GIS-Integrated Engineering:** Visually manage pipeline assets, import elevation data, and map calculations seamlessly

# PIPELINE TOOLBOX APPLICATIONS



## Pipeline Crossings

Conduct API 1102 and CEPA Wheel/Track Load Analysis to determine how surface loads affect buried pipelines. Engineers can assess the impact of highway traffic, railway loads, and construction equipment, preventing excessive stress that could compromise pipeline integrity. PLTB Crossings now includes Sensitivity Analysis, allowing engineers to model multiple crossing conditions simultaneously, optimizing designs to prevent failures.



## Design & Stress Analysis

Perform bending stress, wall thickness, and deflection analysis to verify pipelines meet industry safety requirements. Whether designing new infrastructure or assessing aging pipelines, this module ensures structural integrity, optimizing designs to prevent failures and extend asset life.



## Hydraulics

Optimize pipeline operations with industry-accepted hydraulic flow calculations for gas and liquid pipelines. Engineers can model pressure drops, flow rates, and capacity constraints, ensuring efficient and safe operations across complex pipeline networks.



## Pipeline Testing & Hydrostatic Testing

Ensure pipeline safety and compliance through hydrotest planning and validation. This module allows teams to simulate test conditions, plan water sourcing, and analyze pressure limits, ensuring that new and existing pipelines meet operational standards before commissioning.

## FIND OUT MORE

Learn more about Pipeline HUB's [Pipeline Toolbox](#) 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.

To learn more about Technical Toolboxes and the Pipeline HUB, go to [www.technicaltoolboxes.com](http://www.technicaltoolboxes.com).

