



**TECHNICAL
TOOLBOXES**

PIPELINE TOOLBOX

OVER 250 PIPELINE-SPECIFIC CALCULATIONS TO SOLVE EVERYDAY PIPELINE INTEGRITY, CONSTRUCTION, OPERATIONS, AND DESIGN CHALLENGES

The Technical Toolboxes Pipeline Toolbox (PLTB) provides a standard platform to manage key data assets and critical calculations for pipeline engineering teams. This industry-standard software for pipeline design and analysis calculations eliminates the need for complex spreadsheets so engineers can focus less on data entry and more on analysis and decision-making. Pipeline Toolbox is built on top of the Pipeline HUB platform to provide superior workflow integration and an automated data upload process. Pipeline Toolbox includes Pipeline Crossing, Pipeline Testing, Stress Analysis, Hydraulics, and many more applications widely used by Engineering teams that also comply with federal and professional codes/regulations such as PHMSA, DOT, CSA and ASME including others.

WHY USE THE PIPELINE TOOLBOX

- 250+ industry standard calculations for Gas and Liquid pipelines
- Streamline pipeline data analysis and integrity with precision
- Minimize risk of calculation and data entry errors
- Ensure compliance with PHMSA, DOT, CSA, ASME among other codes/regulations
- Smart automation tools recognize and quality check data as it uploads
- Standardized engineering workflows with multiple user capacity
- Stored data recognition to pre-populate or auto-populate multiple calculations on request



PIPELINE TOOLBOX APPLICATIONS

- **Pipeline Crossings:** Provides industry recommended API 1102, CEPA and Wheel/Track Load Calculations to assess impact of surface load on buried pipe for both wheeled and tracked vehicles. This module determines acceptable loads on pipeline assets and prevents overloading that could affect pipe integrity and prove costly to repair.
- **Pipeline Design & Stress Analysis:** Delivers the standard calculations that ensure pipelines are designed and engineered to industry specifications and enables quick reference for efficient, reliable daily pipeline operations.
- **Hydraulics:** Provides the necessary tools, reports, and graphs, to assess upstream and downstream pressures, flow rates, and volumes ensuring optimal and safe operating parameters in your pipelines.

The screenshot displays two main windows from the software. The left window, titled 'API 1102 Pipeline Crossing Highway Load', shows input fields for 'Critical Case Tension Factor' (set to 0.8) and a table of calculated stresses. The right window, titled 'API Wheel Load Analysis', shows input fields for 'Location of Maximum Load' and a table of calculated stresses. Both windows include 'Calculate' buttons at the bottom.

Stress	Calculated psi	Allowable psi	Pass/Fail
Burden Stress	23,500	85,000	PASS
Effective Stress	23,000.00	85,000	PASS
Soil Stress	1,403.70	6,375	PASS
Long Stress	1,348	15,000	PASS

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API 1102 Pipeline Crossing and CEPA Wheel Load Analysis Gas Modules

TYING IT ALL TOGETHER WITH THE PIPELINE HUB



- A centralized data repository for all Integrity Suite applications and reports, shareable across teams
- All tools are GIS integrated to provide visual representations of pipeline assets and automated elevation import
- Automated report generation with a click of a button to fulfill TVC (traceable, verifiable, complete) documentation.

PLEASE VISIT OUR WEBSITE FOR MORE INFORMATION OR TO REQUEST A DEMO



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www.technicaltoolboxes.com

