TECHNICAL TOOLBOXES

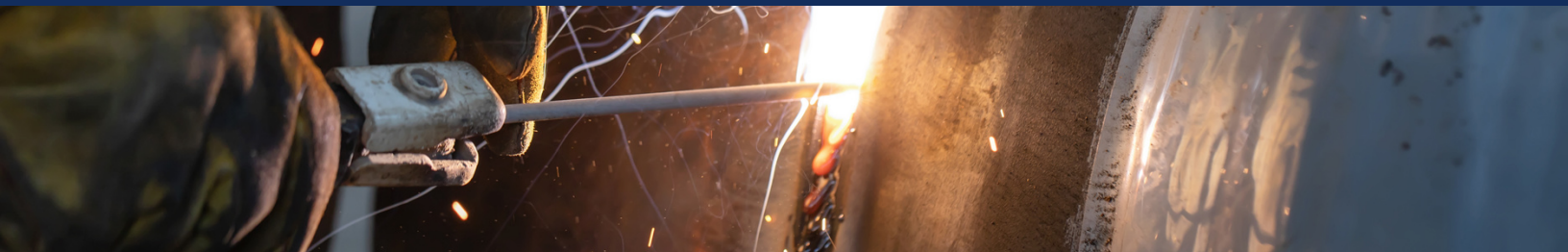
PRCI Thermal Analysis

INDUSTRY PROVEN SOFTWARE TO PRESERVE THE INTEGRITY OF PIPE BY AVOIDING PIPE BURN THROUGH AND HYDROGEN CRACKING.

Technical Toolboxes PRCI Thermal Analysis Software is an industry trusted solution developed in partnership with PRCI for welding calculations and thermal analysis. This software is based on a complex finite element mathematical model using proprietary finite-element solver developed at the Edison Welding Institute (EWI). Pipeline engineers can use this software for modeling heat input and predicting the cooling rate to avoid hydrogen cracking for a given weld location while the pipe is in-service. The Thermal Analysis Software provides additional assessment of attachments (sleeves, branches, etc.) to the pipe along with heat sink capacity calculations that take microstructures of the pipe/attachments into account as well. It is compliant with industry standards and regulations including API 1104, API 1107, ASME Section IX, BS4515, BS6990, and CSA Z662.

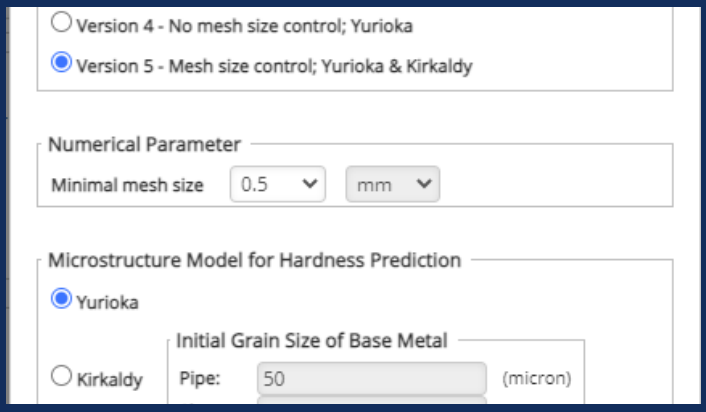
WHY USE THE PRCI THERMAL ANALYSIS

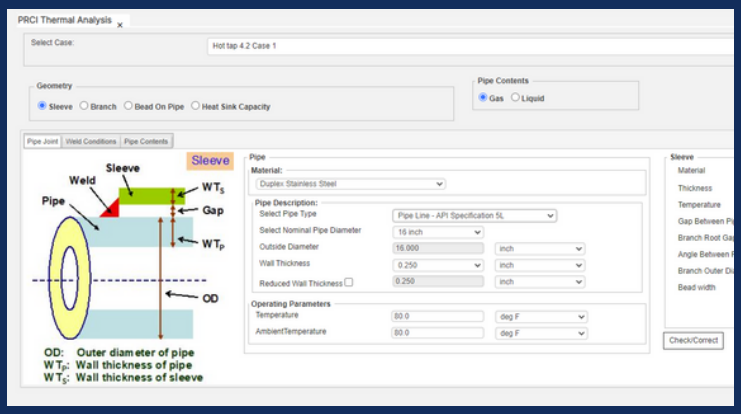
- Balance heat input and cooling rate to mitigate pipe burn through and hydrogen cracking
- Reduce in-service welding related risk to improve safety and integrity of pipe
- Use data-driven modelling to maintain best practices and SOPs
- Increase safety by avoiding explosions or other safety hazards due to faulty calculations
- Lower OpEx and CapEx by eliminating errors in repairs
- Maintain high operational safety, adhering to API 1104, API 1107, ASME Section IX, BS4515, BS6990, and CSA Z662
- Accelerate project schedules through data automation



PRCI THERMAL ANALYSIS APPLICATIONS

Mesh Generator - Input variable mesh sizes for greater accuracy in calculations. Use both the Yurioka and Kirkaldy methods as needed. Mesh generation capabilities include sleeve, branch, and bead on pipe geometries, the latter for buttering layers and weld deposition repairs.





Schematics - Drawings depicting the graphic descriptions of geometries (sleeve, branch, bead on pipe) based on selection to aid both beginners and experts using the software thus reducing onboarding and training time.

TYING IT ALL TOGETHER WITH THE PIPELINE HUB

- A centralized data repository for all PRCI Thermal Analysis 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