# TECHNICAL TOOLBOXES



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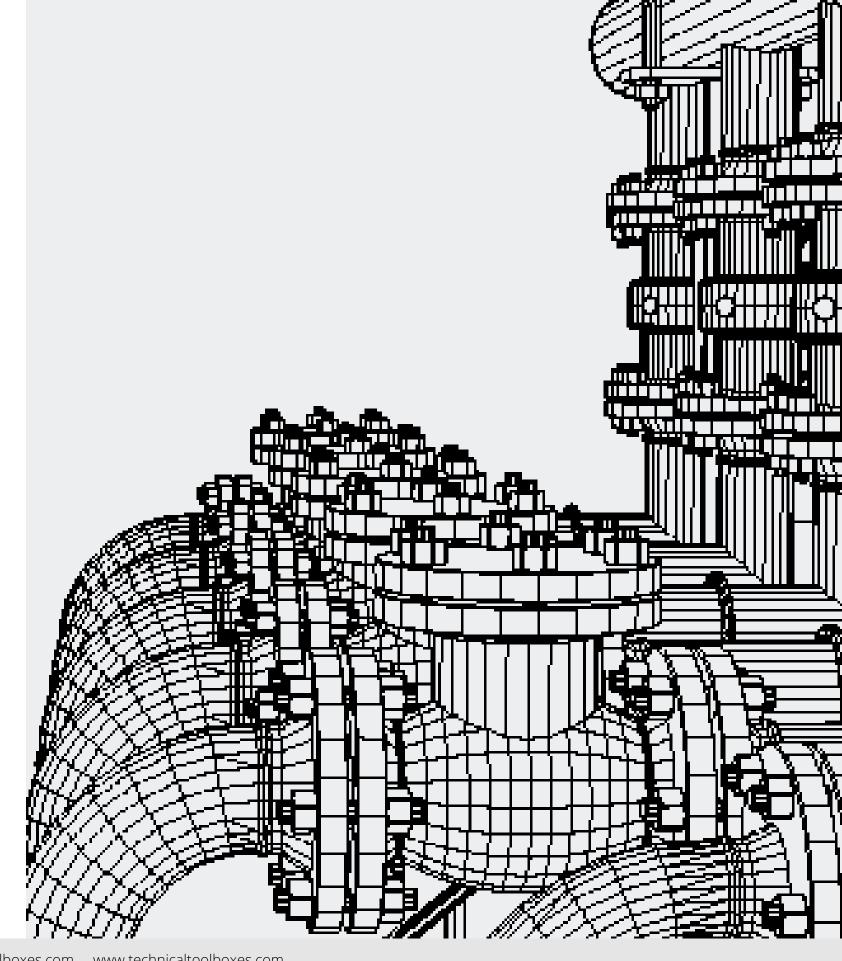
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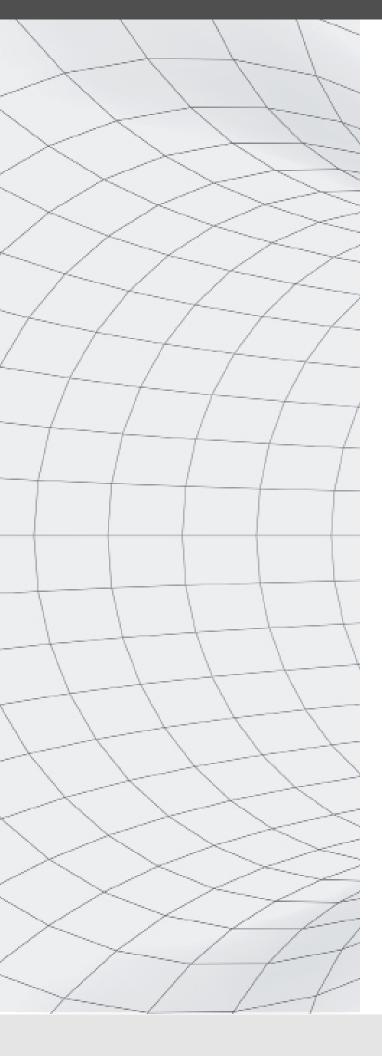
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# Who Should Read This Checklist?

You will find this guide helpful if you are a senior engineer or integrity manager responsible for selecting the tools your engineers use to manage the pipeline lifecycle and defend valuable assets from the sources of corrosion. The buyers checklist clarifies the main topics you should discuss when selecting an AC Mitigation solution, so you can reduce your costs, streamline and accelerate AC mitigation modeling and calculations, and feel confident in the accuracy and efficiency of your software.

"The buyers checklist clarifies the main topics you should discuss when selecting an AC Mitigation solution..."



"The checklist covers the essential factors to consider in selecting AC Mitigation software."



#### Overview

The checklist covers the essential factors to consider in selecting AC Mitigation software. It's important to find software solutions that encompass your needs and fit into your company's resource allotment for time and money spent. The checklist highlights the six key features to address when choosing your AC Mitigation software: AC Modeling Completeness, Minimum Training Requirements, Pipeline Integrity and Corrosion Focus, Automated Calculations, Competitive Pricing, and Data Integration.

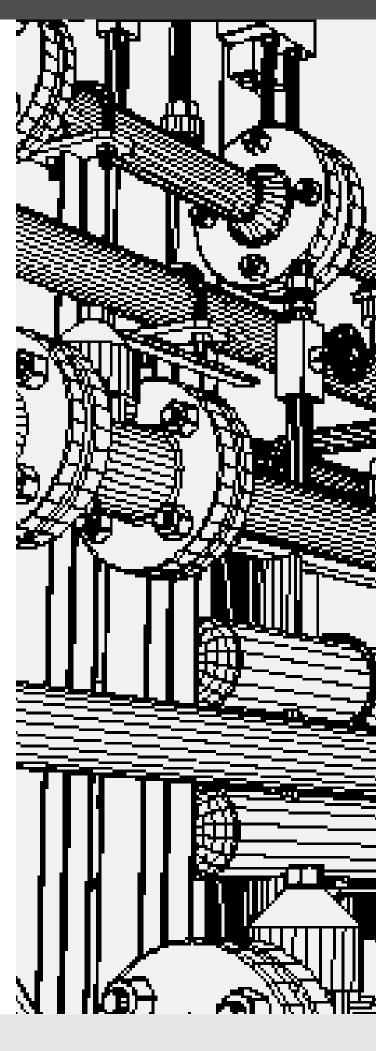


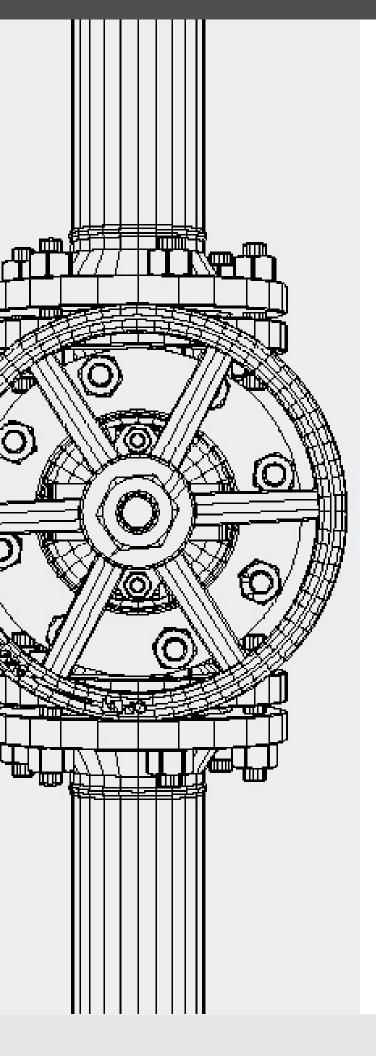
# The AC Mitigation Solution Checklist

### 1. AC Modeling Completeness

As the senior engineer or integrity manager, it's imperative to you to find software that will help you protect both your pipeline assets and your crew. You need comprehensive tools that work WITH your data to create accurate, feasible models. When looking at software, you should look for solutions that can complete the following:

- Identify AC-induced corrosion threats
- Calculations that accommodate variable depths of cover
- Tower modeling for multiple power lines and pipelines
- · Analysis of steady-state, fault current, and with mitigation applied
- · Mitigation material what-if iterations and calculations





### 2. Minimum Training Requirements

You know better than anyone that time is money, so you need user-friendly solutions that you and your people can utilize right away. If you and your team are training, you're not working. When you're weighing AC Mitigation software, here are some things to keep in mind:

- Look for a short learning time for the software
- Are there other training requirements?
- Is the interface intuitive to users?

#### 3. Pipeline Integrity and Corrosion Focus

You need solutions that understand the challenges of AC Mitigation for pipelines and give you the pipeline-centric calculations you need to get the job done right. You also need to know you're getting software that offers you a broad scope of geographical and topographical options.

"You know better than anyone that time is money, so you need userfriendly solutions that you and your people can utilize right away."



"You want to save time and increase productivity, so your software needs to produce fast, accurate calculations."



Look for these features:

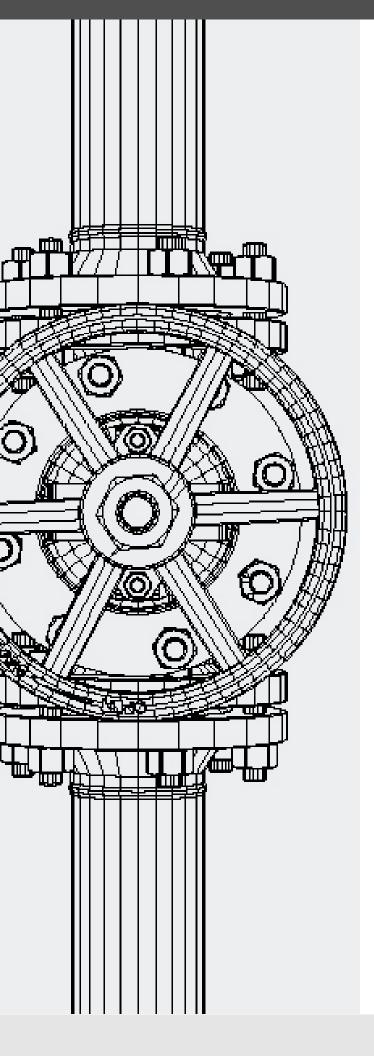
- Lengths and sections of powerlines and/or pipelines - is the map comprehensive?
- Is the focus pipeline integrity or electrical engineering?
- Calculation model source does it relate to pipelines or electrical engineering?

#### Overview

Solutions are only solutions if they work! You want to save time and increase productivity, so your software needs to produce fast, accurate calculations. You also don't want to waste your time repeatedly entering the same data. Here are some questions to ask about the speed and ease of an AC Mitigation tool:

- How rapid and straightforward is the iteration process?
- What is the process for repeating the calculations?
- Is it simple, or does it require manual inputs each time?
- Does it take a few hours or several days to iterate?





### 5. Competitive Pricing

Your bottom line is always looming. You have to know that you're making a sound investment BEFORE you purchase any software solutions. Think about ROI, what resources are most important to fund, and which you want to cut back on. When looking at software, be sure to ask:

- What is the price relative to competing products?
- Does it require expensive training or subscriptions?
- Does using it save time and expense elsewhere?

#### 6. Data Integration

Before choosing an AC Mitigation tool, you need to consider how it will fit in with your company's existing software solutions. If the new application doesn't integrate with the old ones, you're going to waste time and money and end up feeling frustrated and out-ofsync. Be sure to factor in how each solution matches up to your existing framework based on its ability to:

- Output to related software applications
- Share files from other tools such as GIS and shapefiles
- Integrate with related calculation tools

"You know better than anyone that time is money, so you need userfriendly solutions that you and your people can utilize right away."

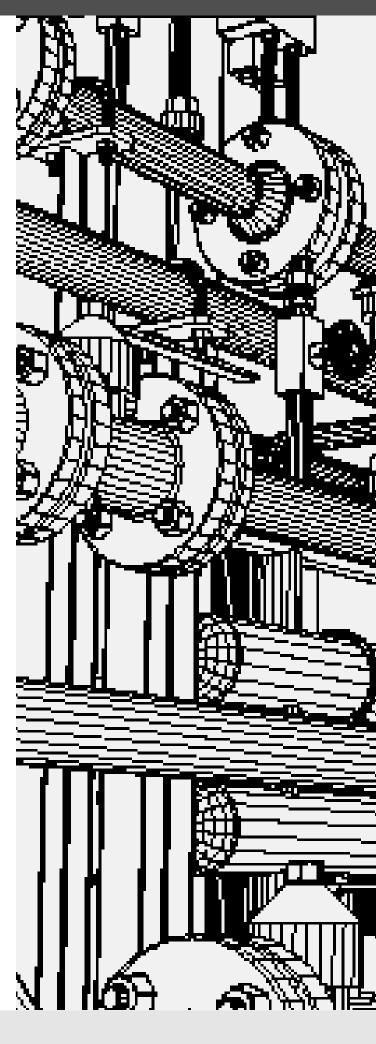


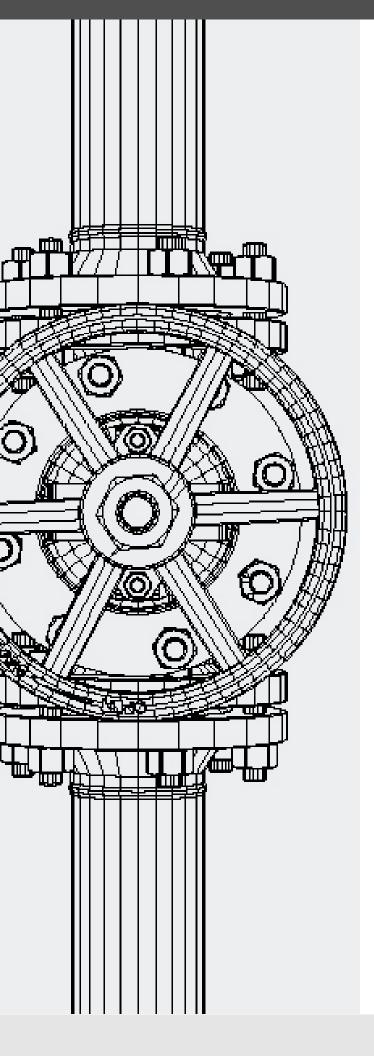
# The AC Mitigation PowerTool

The AC Mitigation PowerTool was designed and integrated with pipeline engineers in mind. The PowerTool contains flexible, scalable, stateof-the-art software modules to help you meet and exceed industry standards for productivity, safety, and cost-effectiveness.

Within the AC Mitigation PowerTool, you'll find features that:

- Model and map AC-induced problems relating to the influence of electrical powerlines on pipeline corrosion
- · Identify induced AC voltages, AC corrosion, steady-state, and fault conditions
- Reduce AC current density effects while meeting the criteria/standards specified by the National Association of Corrosion Engineers (NACE)
- Account for depth of cover for each section, including deep HDD road and water crossings
- Analyze Barnes layering and soil resistivity changes
- Model coating stress voltages as well step, touch, and surface potentials
- Design mitigation strategies to ensure the integrity of the pipeline





#### Conclusions

As the senior engineer or integrity manager, you want the best, most up-to-date tools that will lighten your workload and allow you to focus on what matters—running your pipeline safely and efficiently. Technical Toolboxes has the solutions you need, plus the flexibility and integration you and your crew deserve. Want to learn more about what Technical Toolboxes can do for your AC Mitigation needs? Here's how!

"A solution for encroachment that promotes collaboration facilitates transparency and the free exchange of data."





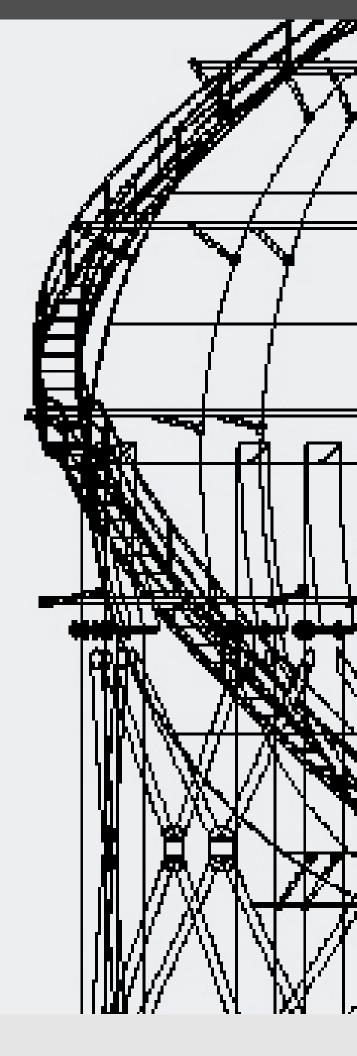


### Next Steps

It's easy to get more information about the Technical Toolboxes AC Mitigation PowerTool and AC Mitigation Toolbox. All you need to do is:

- Read the AC Mitigation PowerTool ROI Guide
- Schedule a software demo
- · Visit the Website Resources page for a full range of information on Technical Toolboxes solutions

That's it! Three easy steps, and you'll be well on your way to making an informed decision about AC Mitigation software for your pipeline.



# TECHNICAL TOOLBOXES

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RSTRENG+

#### **About Technical Toolboxes**

Technical Toolboxes is a leading provider of integrated desktop and cloud-based pipeline software, online resources, and specialized training for pipeline engineering professionals worldwide. We deliver oil and gas industry training courses covering a breadth of topics with industryrecognized instructors. Compare the performance that Technical Toolboxes technology and training can make in pipeline engineering performance and you'll see a measurable difference. Our fit-for-purpose pipeline engineering software platform will help you reduce risk, lower the total cost of operations, and accelerate project schedules. Hundreds of companies rely on our certified, industry-standard technology to enhance their pipeline engineering performance.