Finite Element Analysis Made Easy

Automated FEA at Your Fingertips!

Integrating finite element analysis (FEA) into a fitness-for-service (FFS) assessment doesn't need to be expensive or time-consuming.

Equity Software® is changing asset integrity with automated, cloud-native FEA webtools that deliver efficient, comprehensive, and more cost-effective solutions for modern asset management. These webtools build upon our extensive FFS knowledge to help you seamlessly implement Level 3 analysis at your facility. You will extend equipment life, reduce downtime, and confidently justify continued safe operations.

FASTER FEA ASSESSMENTS

- Complete weeks of engineering work in less than an hour
- Build a detailed 3D finite element model in minutes
- Use automated post-processing and integrated 3D visualization

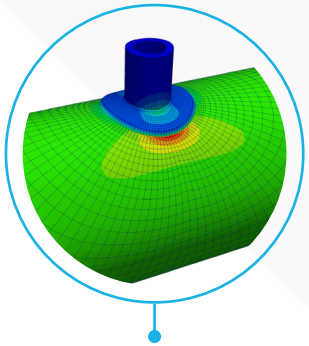
NO EXPERTISE REQUIRED

- No FEA knowledge required!
- Enter geometry, data, or dimensions to get started
- Conduct Level 3 FFS assessments with the ease of Level 2

FLEXIBLE & SCALABLE LICENSES

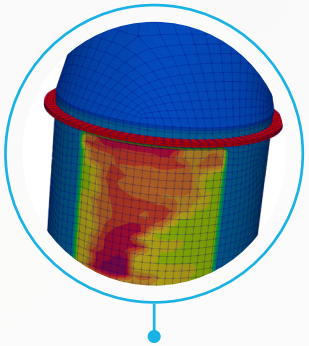
- Always have access to the latest features & functionality
- Add new licenses or modules as needed
- Get started without lengthy IT set-up

Automated FEA Tools



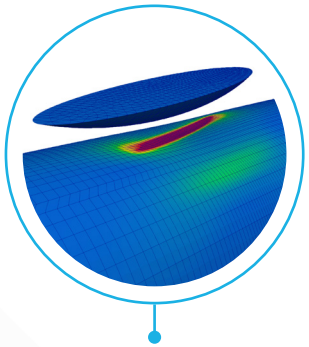
NOZZLES

Evaluate the structural integrity of nozzle connections



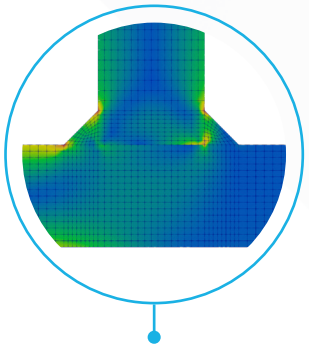
LOCAL THIN AREAS

Analyze general and local thinning



DENTS

Assess local damage & fatigue life



TANKS

Calculate stresses and strains due to settlement

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TURN INPUTS INTO INSIGHTS

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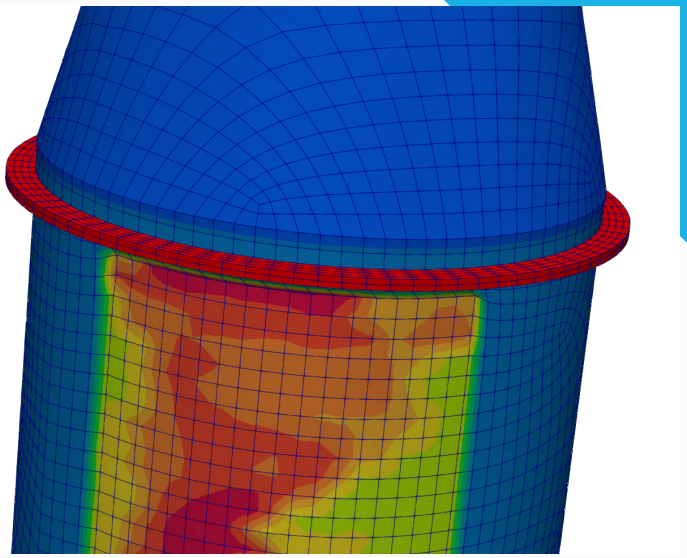
EQUITY SOFTWARE

Simplify Corrosion Analysis

Fast, Versatile, and Precise: Local Thin Area FEA

The structural integrity of pipelines and pressure vessels is often affected by local corrosion damage. By only relying on Level 1 or Level 2 FFS assessment, you may conduct unnecessary and costly repairs or maintenance.

The local thin area (LTA) webtool delivers the accuracy of FEA to help you avoid expensive repairs by automating everything from model generation to stress assessments. The webtool evaluates FFS by focusing on structural weaknesses caused by general and local thinning, ensuring **operational reliability** and **regulatory compliance**. You can confidently determine whether thin areas are fit for continued service under all operating conditions.



I

Analyze the general and local corrosion of cylinders, elbows, cones, and heads with minimal input.

II

Automatically generate FEA models with specified geometry, measured thickness readings mapped onto the geometry, and appropriate boundary conditions.

III

Perform and analyze fully non-linear FEA according to API 579 and ASME BPVC VIII-2 to ensure compliance.

BENEFITS

SAVE TIME & MONEY

Execute tedious tasks in seconds and avoid expensive equipment repairs.

ENHANCE DECISION-MAKING

Assess LTAs with a solver benchmarked and verified against Abaqus.

COMPLY WITH REGULATIONS

Perform internal and external pressure assessments according to API 579 and ASME BPVC VIII-2.

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