



# BRING YOUR TALENT, ENERGY & CREATIVITY

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**TENNECO**

## CAE Engineer

Job location: Gliwice

Headquartered in Lake Forest, Illinois (US), **Tenneco Inc.** is one of the world's leading designers, manufacturers and marketers of Aftermarket, Ride Performance, Clean Air and Powertrain products and technology solutions for diversified markets, including light vehicle, commercial truck, off-highway, industrial and the aftermarket, with 2019 revenues of **\$17.45 billion** and approximately **78,000 employees** worldwide. On October 1, 2018, Tenneco completed the **acquisition of Federal-Mogul**, a leading global supplier to original equipment manufacturers and the aftermarket. In the future, the company expects to separate its divisions to form two new, independent companies: DRiV, an Aftermarket and Ride Performance company, and New Tenneco, a Powertrain Technology company.

### Job summary:

- ✓ The CAE Engineer is responsible for performing numerical simulations of advanced damper designs using finite element method supporting engineering teams in order to verify/optimize designs to satisfy strength and durability requirements.

### Essential duties and responsibilities:

- ✓ Leverages one's technical expertise to take advantage of new opportunities, solve difficult work problems, and accomplish challenging goals.
- ✓ CAE engineer will act as an individual contributor or project team member executing numerical simulations
  - Understanding the simulations scope, requirements and acceptance criteria
  - Choose correct calculation methodology in order to properly simulate problem physics
  - Prepare FEA model according to simulations objectives
  - Run simulations, identify potential convergence issues and apply correct actions
  - Perform post processing by proper interpretation of FEA results for engineering decisions
  - Report simulations results with appropriate results summary and practical engineering conclusions and propose potential design improvement's.
  - Maintain records of all activities and results

### Technical/ Professional Knowledge and Skills:

- ✓ Strong knowledge of solid mechanics theory and practice in fundamentals of machinery design
- ✓ Proficient knowledge of finite element method theory and practical applications in following physics: static nonlinear implicit, dynamic explicit, NVH
- ✓ Proficient knowledge and practical usage of Abaqus solver
- ✓ Basic knowledge of optimizations techniques
- ✓ Presenting capability in programing; advantages Python
- ✓ Knowledge of using statistical analyses tools and DOE (Design of Experiment) techniques, to effectively optimize the design
- ✓ Ability to plan and execute FEA simulation plan for complex designs development
- ✓ Advantage's is knowledge of using following software: HyperMesh, nCode, Tosca Structure, Isight, HyperStudy

### Education/Experience:

- ✓ Master degree in Mechanical Engineering in FEA specialization
- ✓ Postgraduate study in specifics FEA range (optional).