

Design for Manufacturing with non-linear FEA Mass optimization and fatigue life prediction for polypropylene tank

THE CLIENT

One of the global leaders in sound proofing solutions. Serves to various industries such as aviation, Agriculture, Automobile industries with the complete range of services for Plastic and composite products.

THE BUSINESS NEED

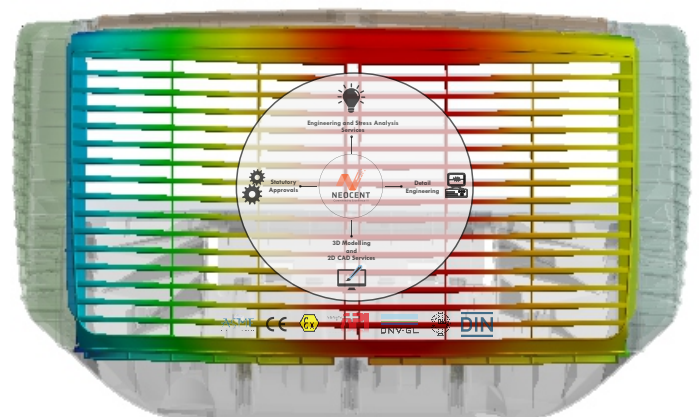
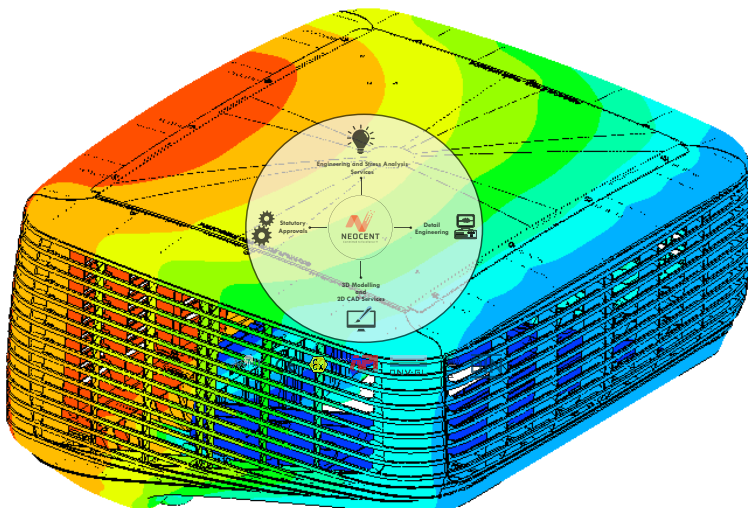
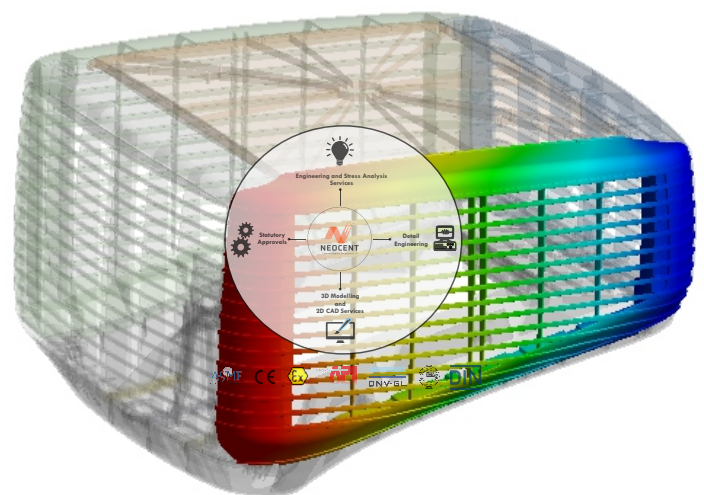
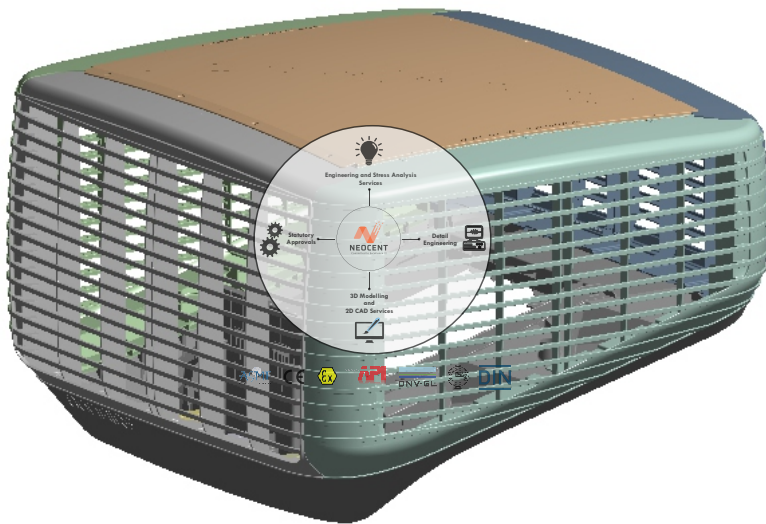
Our client was seeking Details Engineering Design for Manufacturing , FEA- Validation and final testing for Non-linear plastic polypropylene water tank.

NEOCENT SOLUTION & DELIVERABLE

Detail Engineering : Mechanical design calculation, Material selection based on Application.

CAD Detailing : G.A. Drawing , Details drawing ,3D Modeling.

Analysis : FEA Stress analysis with different load condition as given specification documents.



Neocent Engineering Services is a multi-discipline engineering services company. Established in 2015, we offer high-quality engineering support solutions to global EPC organizations across some of the industries listed: Automotive, Aerospace, Turbo machinery, Heavy engineering, HVAC, Oil & Gas, Material handling and Process industry.

Neocent provides detailed engineering services to EPC, EPCM, OEM, and PMC as long-term turnkey projects. Our EPCM services include Project Management, Feasibility Studies, Conceptual & Basic Engineering, Detailed Design, Procurement, Construction Management, Commissioning & Start-up, and Operations & Maintenance.

Neocent Engineering's service offering, include;

- Engineering and Stress Analysis Services
- Details Engineering
- 3D Modelling and 2D CAD Services
- Statutory Approvals

Neocent FEA Consulting Services

FEA is beneficial to any project that requires strength, durability or dynamics analysis. It is frequently used to investigate design changes for cost, weight, manufacturing, bench marking or performance reasons, and can provide early confidence in designs prior to undertaking expensive and potentially destructive test regimes.

We specialize in delivering design optimization services through FEA across enlisted areas:

- Structural analysis of various industrial components for storage for stability and seismic vibrations
- Fracture analysis and design validation for limiting cases
- Life assessment tests against fatigue loading and pressure
- Study of component behaviour for impact loading and design validation
- Design optimization to withstand designed values of pressure and stress
- Thermal analysis in heating and cooling industrial equipment
- AISI N690

The technical expertise of our FEA consultants in delivering Finite Element based product design optimization enables you to address complex engineering design problems and help validate product designs prior to production.

At Neocent, we aim to achieve our vision by emphasizing ensuring that our offerings meet the following criteria, agility , on-time delivery, superior quality, cost-effectiveness and great efficiency continues learning culture amongst the team an able and guarantees continuous innovation in the business.

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