

Detail Design calculation , FEA Stress Analysis and Detail fabrication Drawing for 30 TPH Hopper Structure for AFR

THE CLIENT

A India-based client offering an array of customized solutions to cement industries with customized material handling equipments.

THE BUSINESS NEED

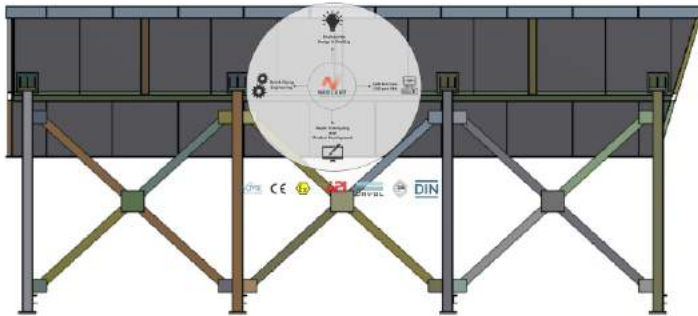
Our client was seeking engineering design assistance for a 30 tph Hopper structure design. Client wanted Stress simulation on Hopper Structure with IS:875 wind applicable code and Seismic for manufacturing approval process.

**NEOCENT SOLUTION
&
DELIVERABLE**

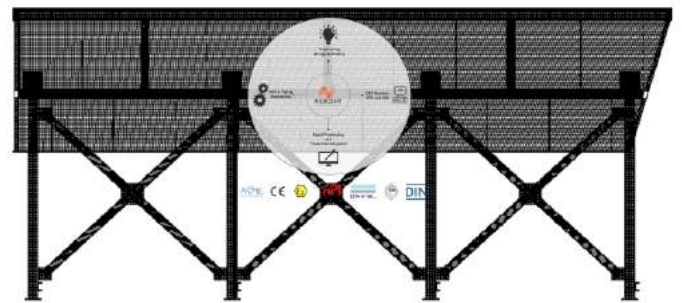
Detail Engineering : Mechanical detail design for hopper Structure, Foundation load calculation, Lifting and transportation load calculation , Lifting Lug details calculation etc.

CAD Detailing : G.A. Drawing , Details fabrication drawing ,3D Modeling Hopper Structure, Transportation Support Drawing, Lifting and Erection Drawing.

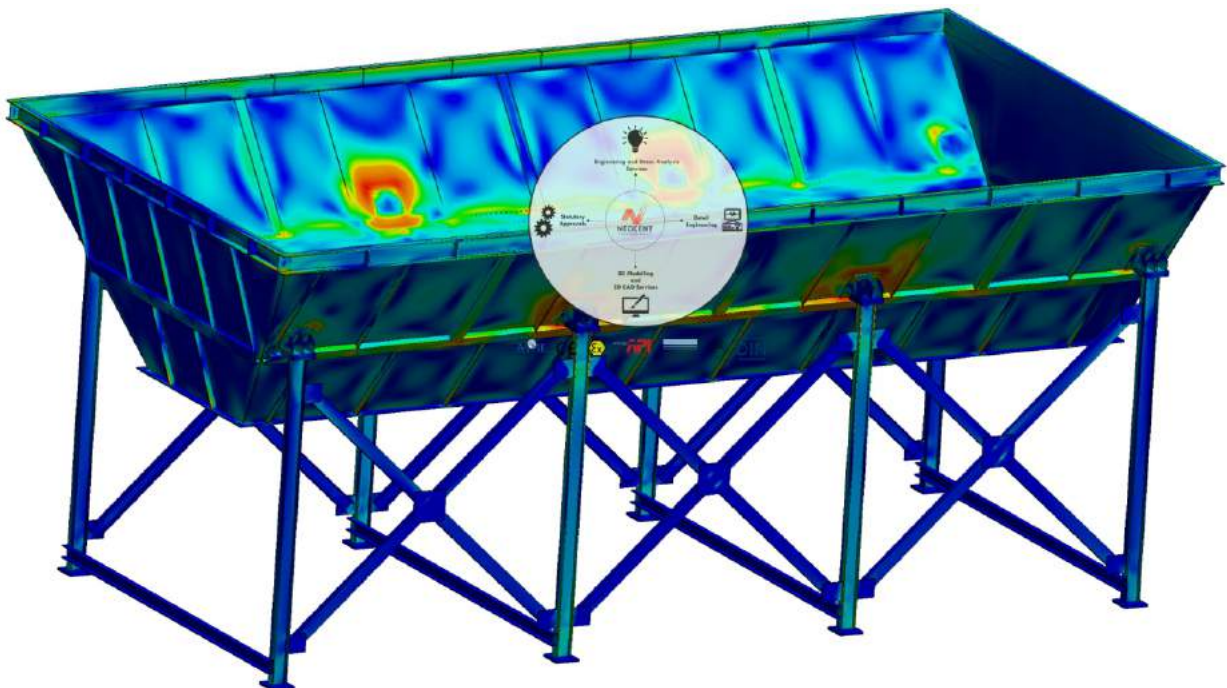
Analysis : Structure Stress Analysis



Details 3D CAD Modeling Hopper Structure



Meshing (Hexa) for Hopper Structure



Stress Distribution on Hopper Structure

Detail Design calculation , FEA Stress Analysis and Detail fabrication Drawing for 30 TPH Apron Feeder for AFR material handling

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THE BUSINESS NEED

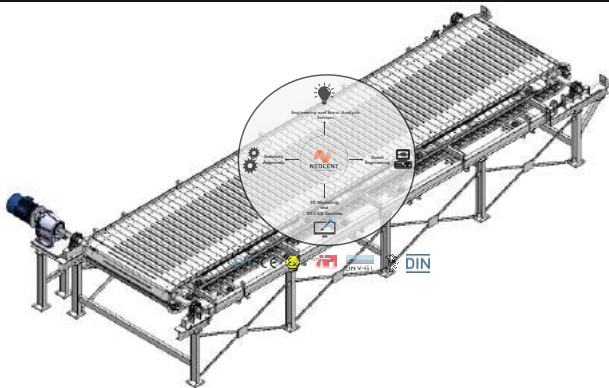
Our client was seeking engineering design assistance for a 30 tph Apron feeder structure design. Client wanted Stress simulation on Apron feeder Structure with IS:875 wind applicable code and Seismic for manufacturing approval process.

NEOCENT SOLUTION & DELIVERABLE

Detail Engineering : Mechanical detail design for Apron feeder Structure, Foundation load calculation, Lifting and transportation load calculation , Lifting Lug details calculation etc...

CAD Detailing : G.A. Drawing , Details fabrication drawing ,3D Modeling Hopper Structure, Transportation Support Drawing, Lifting and Erection Drawing.

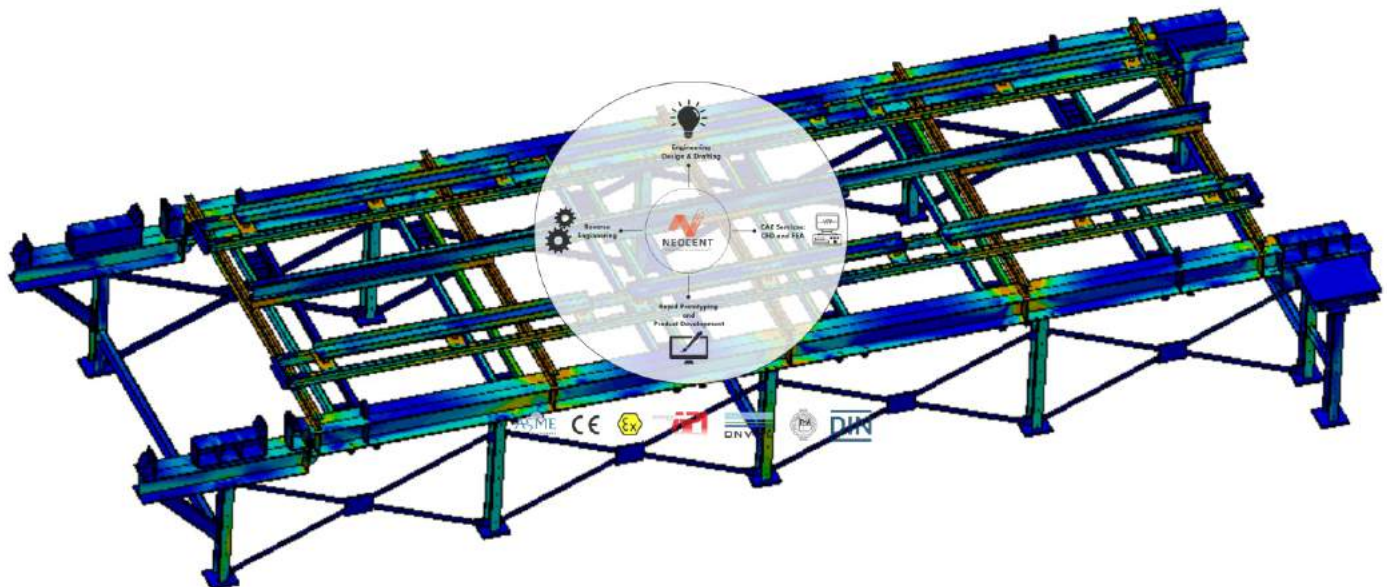
Analysis : Structure Stress Analysis



Details 3D CAD Modeling Apron Feeder Structure



Meshing (Hexa) for Apron Feeder Structure



Stress Distribution on Apron feeder Structure

Detail Design calculation , FEA Stress Analysis and Detail fabrication Drawing for 100 TPH for AFR material feeding plant

THE CLIENT

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THE BUSINESS NEED

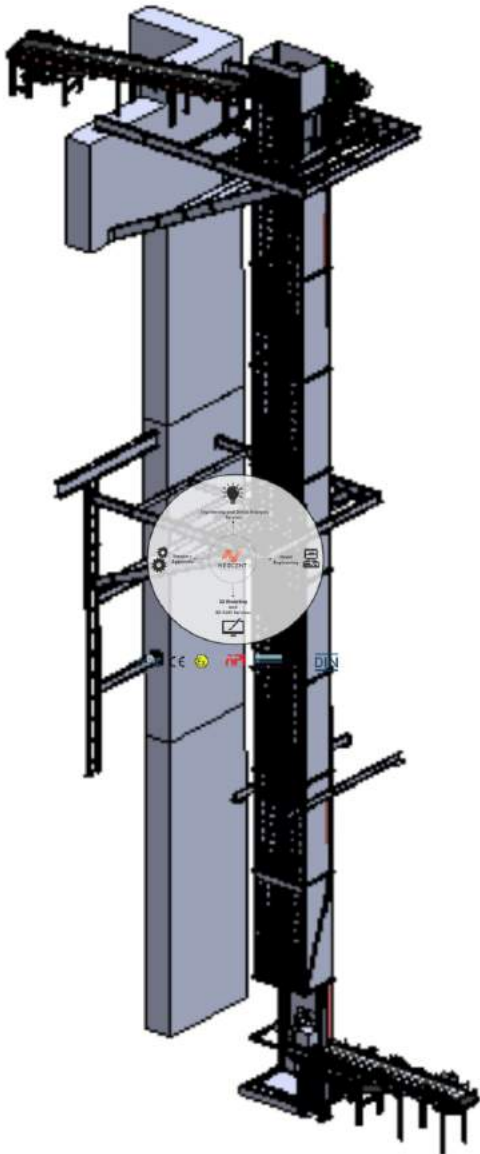
Our client was seeking engineering design assistance for a 100 tph starterkit_AFR Feeding system design. Client wanted Stress simulation on Structure with IS:875 wind applicable code and Seismic for manufacturing approval process.

NEOCENT SOLUTION & DELIVERABLE

Detail Engineering : Mechanical detail design for Elevator 26.5 meter height, Belt conveyor, Roller Conveyor, Double flap damp valve, Feeding chute Structure, Foundation load calculation, Lifting and transportation load calculation , Lifting Lug details calculation etc...

CAD Detailing : G.A. Drawing , P&ID, Details fabrication drawing ,3D Modeling equipments structure, Transportation Support Drawing, Lifting and Erection Drawing.

Analysis : Structure Stress Analysis and Rigid dynamic analysis for Counter weight Design.



3D detail Modeling AFR Feeding System



Erection at plant location



DFM For Ropeway Crossing Bridge (80 meter length) of NH 206 NATIONAL HIGHWAY AUTHORITY OF INDIA APPROVED

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THE BUSINESS NEED

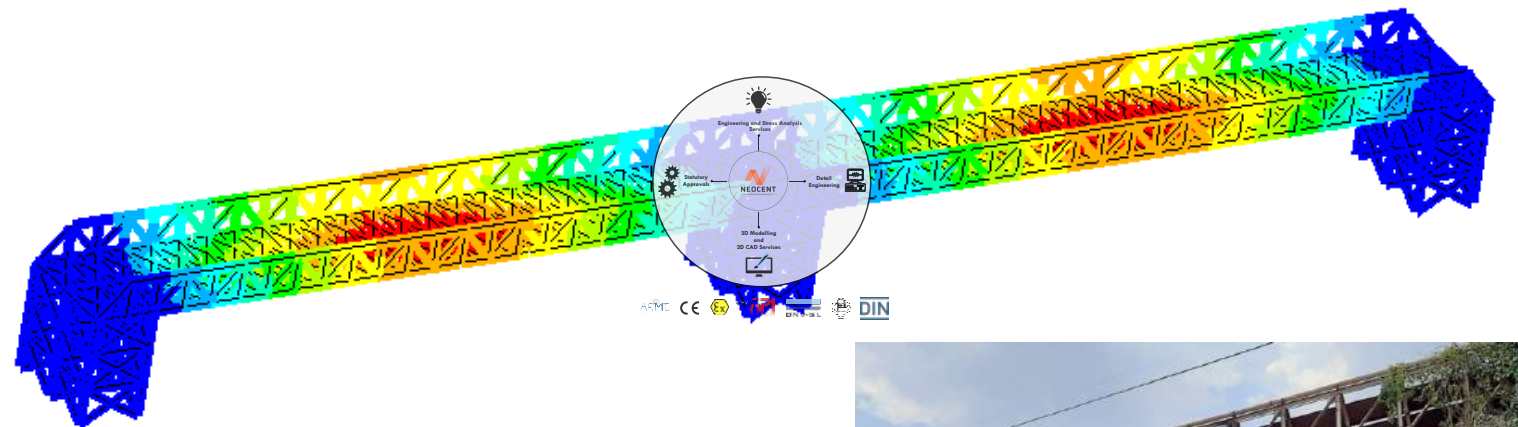
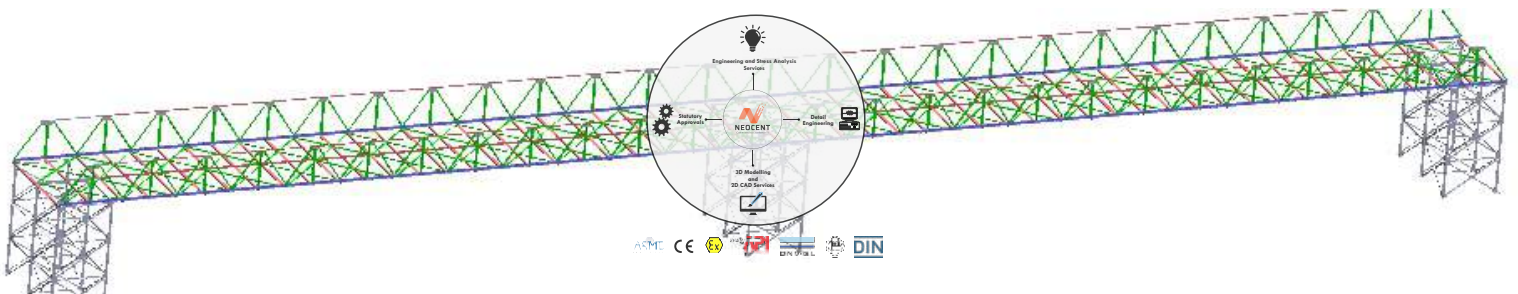
Our client was seeking engineering design assistance for 80 Meter Bridge structure design. Client wanted details calculation and Staad analysis report for approval process.

NEOCENT SOLUTION & DELIVERABLE

Detail Engineering : Mechanical detail design structure calculation with different load cases , Foundation load and foundation drawing.

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

Analysis : FEA Stress analysis on Bridge structure with different load case as per NHA standards, Foundation analysis.



Design for Manufacturing and Validation on Crane lashing structure under DNV Approval

THE CLIENT

A UK-based client offering an array of customized solutions to cement industries with customized material handling equipments.

THE BUSINESS NEED

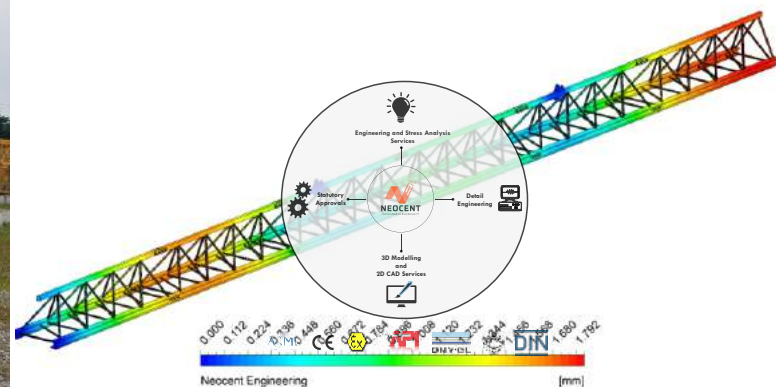
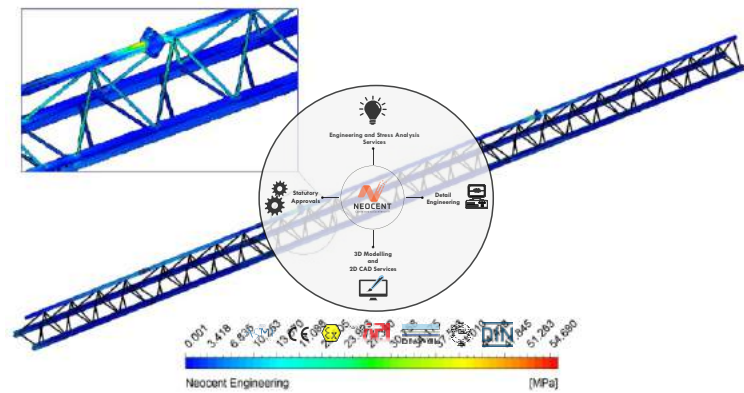
Our client was seeking engineering design assistance Crane structure design. Client wanted details calculation and Staad-FEA analysis report for DNV approval process.

NEOCENT SOLUTION & DELIVERABLE

Detail Engineering : Mechanical detail design structure calculation.

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

Analysis : FEA Stress analysis on different load case as per DNV standards.



Manufacturing at client Workshop

Stress Analysis for validation

Design for Manufacturing for Screw Conveyor along with ladder structure

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THE BUSINESS NEED

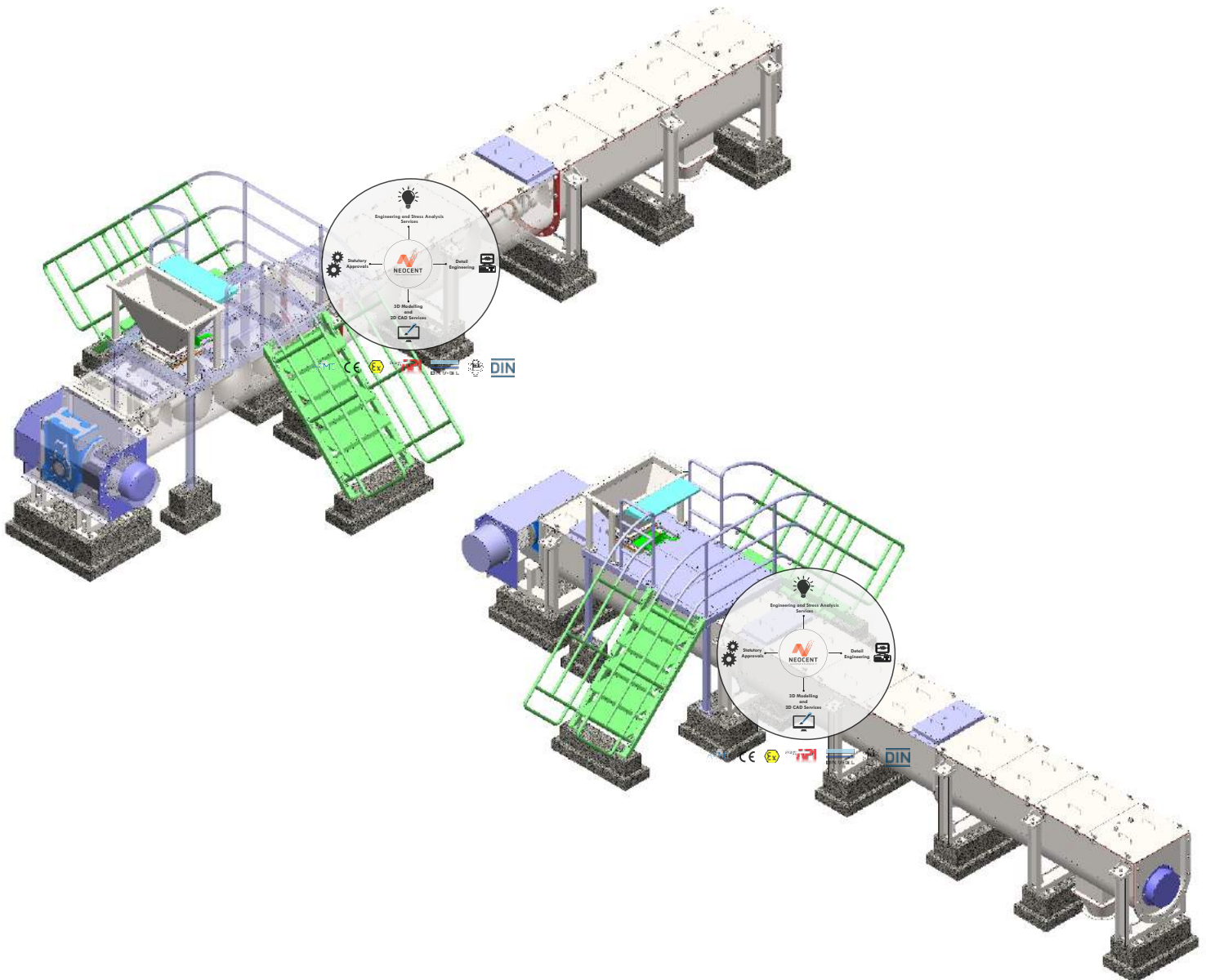
Our client was seeking engineering design assistance Screw Conveyor design. Client wanted details calculation and Stress analysis report for structure.

NEOCENT SOLUTION & DELIVERABLE

Detail Engineering : Mechanical detail design calculation , Foundation load calculation, Dynamic load study.

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

Analysis : FEA Stress analysis on Screw Conveyor Structure, DEM simulation to study particle tracing.



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 Engineering expert engineers are proficient in analyzing the impact of external forces on static structures, such as construction components, machine components, and more. Our highly skilled engineers offer structural analysis to ensure that these modules meet fatigue safety requirements.

Our Structure and stress analysis specialists help simulate the movements of non-stationary objects in vibration analyses, lifting analysis, and other services. With our technology and experience in structure stress analysis, we quantify and further rectify failure in the structure of components that do not meet the proposed design plan, which could result from improper use of materials or even flaws in the manufacturing process.

Industry codes and standards adhered to by our Designers :

ANSI, AISC, UBC, ASCE, ACI, BS, IS.

Neocent FEA Consulting Services

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 and guarantees continuous innovation in the business.



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