

## Design and CFD simulation for Centrifugal pump to optimize performance

### THE CLIENT

A US-based client offering an array of customized solutions to power generation and Cement industry equipment along with performance guaranty.

### THE BUSINESS NEED

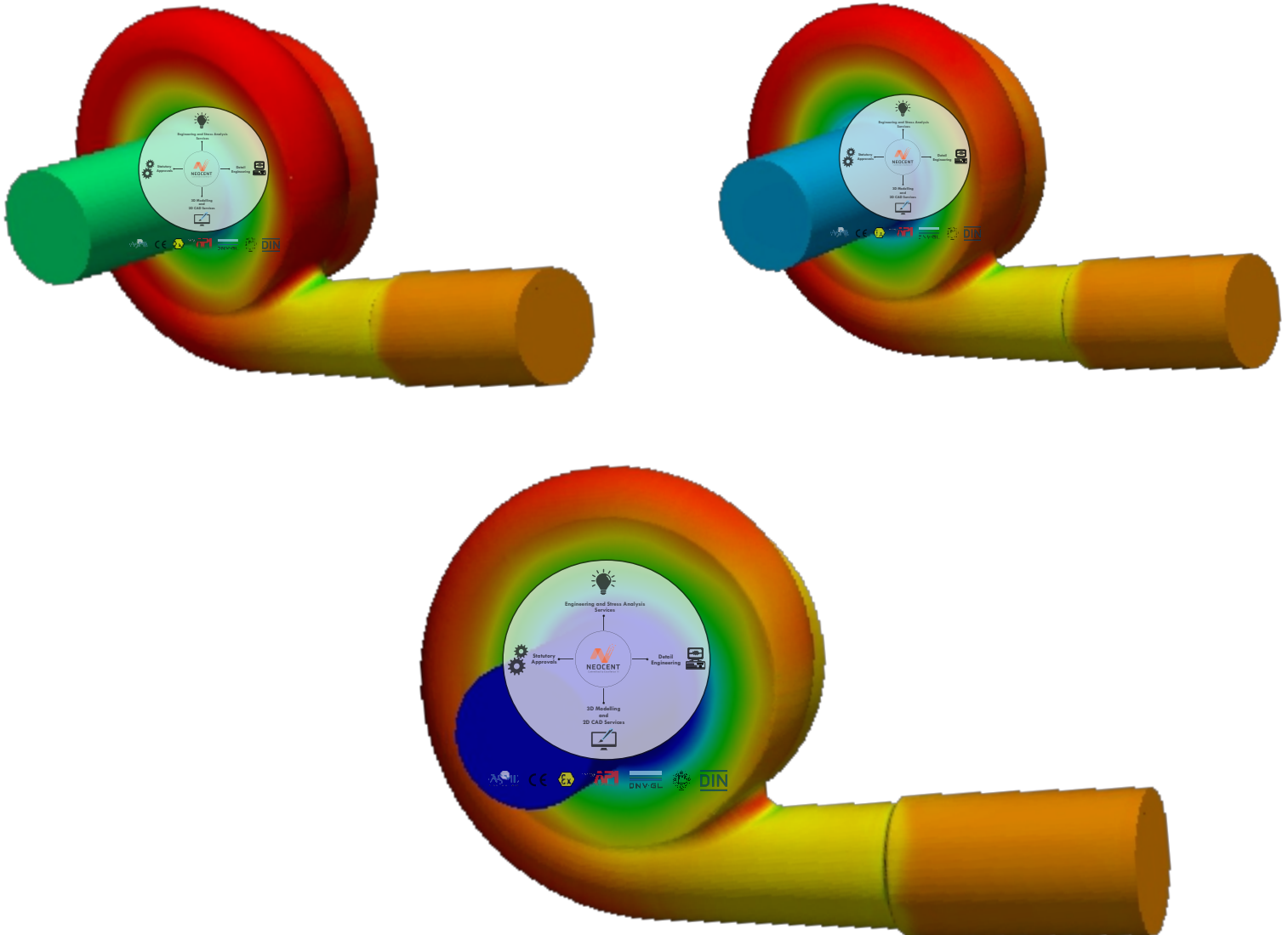
Our client was seeking engineering design assistance for Centrifugal Pump along with computational fluid dynamics testing.

### NEOCENT SOLUTION & DELIVERABLE

**Detail Engineering** : Details Mechanical Design, Details Process Design calculation.

**CAD Detailing** : G.A Drawing, Details Manufacturing drawing, Details CFD Modeling

**Analysis** : Dynamics (6-DOF) Simulation on Centrifugal pump to check pressure drop and optimize cavitation area.



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 CFD Consulting Services

We provide the best and most comprehensive Computational Fluid Dynamics (CFD) analysis services. We excel in providing precise modelling to aid an accurate CFD analysis and propose effective engineering solutions.

Our Turbo machinery / Rotating machine CFD Analysis Services include:

- Aerodynamics Analysis
- CFD Combustion Analysis
- CFD Fluid-Structure interaction(FSI)
- CFD Heat Transfer Analysis
- CFD HVAC Analysis
- CFD Hydrodynamics Analysis
- CFD Multi phase Flow Analysis
- CFD Turbo-machinery Analysis

We help engineering design validate the geometry through virtual simulation prior to production and avoid last-minute hassles. To ensure accuracy in results, we also perform validity checks such as convergence analysis, boundary conditions review and hand calculations, allowing manufacturers to validate their designs faster.

In brief, clients come to us when they need high-quality work executed and documented to withstand the most rigorous reviews.

#### Contact Details

Email : [sales@neocentengineering.com](mailto:sales@neocentengineering.com)

Website : [www.neocentengineering.com](http://www.neocentengineering.com)

Linked in : <https://www.linkedin.com/company/neocent-engineering>

India Contact : +91- 8000 860 806

Canada Contact : +1 (226)961-5067

#### Disclaimer:

All Content/Information present here is the exclusive property of Neocent Engineering Pvt. Ltd (NEPL). The Content/Information herein merely represents and highlights the nature of work and projects successfully undertaken by NEPL and is not intended to be advisory in nature. No representation or warranty, express or implied is made with regards to the contents of the said Document, and the recipients of this Document should not place undue reliance on this Document and should use their own independent prudent judgment while entering into a contractual relationship with NEPL based on the information contained in this Document. The contents of this document, including without limitation, details about services, pricing information, forward looking statements, capabilities and results are liable to vary on a case to case basis, due to factors beyond NEPL's control. All opinions expressed by any Third Party that form part of the contents of this document are such Third Party's own independent opinions and NEPL assumes no responsibility for the same. That except for entering into a business relationship with NEPL, no material from here may be copied, modified, reproduced, republished, uploaded, transmitted, posted or distributed, or used for any commercial purpose whatsoever, without the express written consent of NEPL. All content/information provided herein is protected by stringent contracts, statutes and applicable Intellectual Property Laws. Unauthorized use of the content/information appearing here may violate copyright, trademark and other applicable laws, and could result in criminal or civil penalties.